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Promoting Breastfeeding in WIC:

A Compendium of Practical Approaches

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CONTENTS

LIST OF EXHIBITS

LIST OF EXHIBITS (CONT'D)

NOTE TO READER

The main goal of this compendium is to discuss the findings of the WIC Breastfeeding Promotion Study and Demonstration in a manner that will be helpful to WIC staff and others responsible for providing health and nutrition services to low-income mothers and their infants. It is expected, however, that individuals in different positions may want to use the compendium differently. Individuals such as regional WIC coordinators, interested in learning more about breastfeeding promotion across a variety of institutional settings and participant populations may wish to read the compendium from cover to cover. Others, such as local level WIC nutritionists, may wish to pay special attention to efforts conducted at sites similar to their own, or may wish to focus especially on a certain component such as prenatal education. (Readers unfamiliar with the history and policies of the WIC program may wish to begin by reading the overview of the WIC program presented in appendix A.)

The compendium contains a variety of ideas for breastfeeding promotion. Some are straightforward and may be implemented with relative ease; others require detailed planning and allocation of resources. While it is believed that the approaches and strategies discussed in this compendium can all be successfully transferred to other settings, it does not necessarily follow that they will be equally successful in all settings or with all populations. It is expected that practitioners will critically review the ideas presented in light of their own particular settings and circumstances. In many cases careful adaptation may be more productive than attempts at exact replication.

I. INTRODUCTION

A. Overview

The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) contracted with Development Associates, Incorporated, to conduct the Breastfeeding Promotion Study and Demonstration for the Special Supplemental Food Program for Women, Infants, and Children (WIC). The purpose of the study is to identify, evaluate, and demonstrate models for effective breastfeeding promotion in WIC.

According to the 1980 Health Promotion/Disease Prevention Objectives established for the Nation and published by the Department of Health and Human Services (DHHS), by the year 1990 national breastfeeding rates should be increased to 75 percent at hospital discharge and 35 percent at 6 months of age (1). Breastfeeding statistics indicate that breastfeeding among WIC participants is below both the Surgeon General's recommendations and the American population as a whole. According to data provided by Ross Laboratories covering the year 1986, 38 percent of WIC women breastfed at hospital discharge compared to 57 percent for American postpartum women, and 11 percent of WIC women breastfed infants until 6 months of age while 22 percent of American postpartum women did so (2).*

In a recent study of WIC participant and program characteristics, WIC agencies reported that only 13 percent of WIC infants were breastfed at their most current certification and that records indicate only an additional 2 percent had been breastfed in the past (3).** The actual incidence of any breastfeeding among WIC participants nationally is not known. However, both studies point out that breastfeeding rates are significantly lower among Blacks, teenage mothers, and the less educated, compared to the WIC population as a whole.

The WIC program has a unique opportunity to promote breastfeeding with low-income women in that it integrates three principal benefits: food supplements, nutrition education, and medical referrals. Therefore, women not likely to seek out nutrition education alone are exposed to nutrition education messages about breastfeeding because they receive food supplements and medical referrals. Since Federal regulations do not prescribe specific content and format of nutrition education, the nature and manner in which nutrition education and breastfeeding promotion is delivered to participants varies widely among programs. The Breastfeeding Promotion Study and Demonstration was designed to identify breastfeeding promotion efforts that have worked at the local level, to describe the essential elements that have made them successful, and to make them known to State and local WIC agencies for use in their own program.

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*The Ross Laboratories figures are based on self report with only a 50-60 percent response rate. Since breastfeeding mothers may be more likely to complete and return mailed surveys than nonbreastfeeding mothers, the Ross Laboratories' figures may be inflated.

**Because of incomplete records, the figure of 15 percent of WIC infants ever breastfed may be a low estimate.

B. Selection of Studied Sites

Detailed programmatic information was collected from 54 sites, and visits were made to 8 sites identified as having successfully implemented breastfeeding promotion projects among program participants. Briefly, the process through which WIC sites were selected for case study began with WIC State agencies nominating one or more local agencies because of their effectiveness in encouraging breastfeeding in relation to the historic or expected rates of breastfeeding for the population being served. Each of the nominated local agencies was then asked to complete a detailed survey form.

Based on information contained in the local agency survey, a selection committee made up of study staff and the FNS contracting officer's representative recommended 20 of the nominated WIC sites for a telephone followup interview. Finally, after considering the clarifications provided in the telephone interviews, six WIC sites were chosen for case study. They are:

- St. Albans District Office WIC Program, sponsored by the Vermont Department of Health;
- Eau Claire City-County WIC Program, sponsored by the Eau Claire, WI, City-County Department of Health;
- Centro de Salud Familiar La Fe Program in El Paso, TX;
- Near North Health Service WIC Program in Chicago, IL, sponsored by the Near North Health Services Corporation;
- South Fulton Health Center WIC Program in Atlanta, GA, sponsored by the Fulton County Health Department; and
- South Health Center WIC Program in Los Angeles (Watts), CA, sponsored by the Research and Education Institute, UCLA Harbor Medical Center.

In addition, two non-WIC sites that had breastfeeding promotion approaches potentially applicable to WIC were chosen for case study. These sites, recommended for inclusion in the study by FNS and DHHS, are:

- Maternal and Child Health Migrant Health Project in Newton Grove, NC, sponsored by the Department of Maternal and Child Health, University of North Carolina, Chapel Hill; and
- Breastfeeding Promotion Project, Columbia Health Center, Seattle, WA, sponsored by the Seattle-King County Department of Health.

Both of the non-WIC sites serve WIC populations. What differentiates them from the WIC sites is that the studied breastfeeding promotion activities are primarily provided by non-WIC staff and the activities are primarily funded from non-WIC sources.

Overall, the selection committee's effort was directed toward identifying WIC and non-WIC sites which had developed and successfully implemented innovative and transferable approaches to breastfeeding promotion. While they were all judged to be successful projects, they are not necessarily the eight most effective or most successful programs in the country. For a variety of reasons

it is quite possible that a number of excellent programs were not nominated. The selection process was in many cases unavoidably subjective or based on incomplete data. For example, effectiveness was considered not in terms of absolute breastfeeding rates, but rather in relation to historic rates or expected rates given the population served. Further, criteria applied at the final stage of the selection process were that the set of selected sites should be representative of different approaches, should be geographically dispersed, and should serve different ethnic groups.

A more detailed discussion of the research methodology is included as appendix B. A list of other study documents is also included in appendix B.

C. Barriers to Breastfeeding

An early task in the WIC Breastfeeding Promotion Study and Demonstration was to conduct a review of the literature relating to barriers which deter low-income women from initiating or continuing breastfeeding. As a result of an extensive search, 110 sources were selected for further review and 38 breastfeeding promotion projects directed toward low-income women were identified.

Based on a review of this literature, a number of barriers were identified. They include a lack of knowledge about, and exposure to, breastfeeding; hospital practices which are oriented towards bottle-feeding; posthospital discharge obstacles; constraints in the workplace; marketing of infant formula; and cultural practices. The literature for each is discussed below.

Lack of Knowledge. Since the 1960's there has been an increase in breastfeeding, especially among more highly educated women. This increase has been associated with an interest in the "back to nature" movement, and access to information regarding the many benefits of breastfeeding (4). Low-income women, because of educational or linguistic disadvantages, often have limited access to breastfeeding information which appears primarily in print and in English. Language barriers may also limit the ability of low-income mothers to communicate with care providers (5). Many studies have shown that while women may understand that breastfeeding is advantageous to the infant (6-9), they may lack specific knowledge on how to breastfeed in normal and special situations (4,7,10,11). Lack of knowledge about the normal demands of a newborn infant can lead mothers to perceive problems where, in fact, none exist, and their worry and anxiety can interfere with their "let-down reflex," which is necessary for breastfeeding to occur.

Added to the lack of knowledge about breastfeeding is the lack of direct exposure to the practice of breastfeeding, caused in part by the shift from the extended family to the nuclear family (12). Family members who could serve as role models and sources of information are less available. A supportive network of breastfeeding relatives, friends, and neighbors which might positively influence a woman's infant feeding decision also tends to be lacking (4,6,12,13). Women whose friends have breastfed are themselves more likely to breastfeed; on the other hand, if the friends maintain negative attitudes towards breastfeeding, women are less likely to breastfeed (6).

Because of lack of knowledge and limited support, many women who initially decide to breastfeed fail to do so successfully, despite their initial enthusiasm. This is especially true for low-income women, whose rates of breastfeeding decline dramatically during the first 2 postpartum weeks (14).

Hospital Practices. Obstacles presented by the hospital perinatal environment have been consistently identified in the literature as deterrents to breastfeeding, even among women with a stated preference to breastfeed (7,8,11,15-19). Restricting maternal access to the infant, regular distribution of infant formula to nursing mothers, inappropriate use of medications, and early discharge (24-48 hours after delivery) before breastfeeding has been established, are commonly encountered practices which seriously undermine the mother's ability to successfully establish lactation.

While the common practice of including formula samples in the discharge packs *per se* has not been unequivocally shown to adversely affect breastfeeding (20), it does seem to make a difference among the women of the more vulnerable groups, such as less-educated mothers, primiparas, and mothers who have been ill postpartum (21), especially when the hospital practices are nonsupportive. Several studies have also found that medical and nursing staff often lack knowledge about breastfeeding, and do not actively encourage it (11,19,22).

Posthospital Discharge Obstacles. For women who overcome the barriers confronting them in the hospital setting, the customary 4- to 6-week gap between discharge and the first pediatric and gynecological appointments is another critical barrier. During this time, many common problems associated with breastfeeding surface, such as sore nipples and engorgement. Frequently the breastfeeding mother is unable to receive assistance either from health care providers or from experienced family members or friends. Without advice and support in solving breastfeeding problems, the woman may reluctantly switch to bottle-feeding. Also, the first postpartum and pediatric appointments may themselves introduce other obstacles to breastfeeding continuation, such as unsupportive clinic staff, physicians' recommendations to introduce formula or solids, and prescription of oral contraceptives incompatible with lactation (19).

The Workplace. Working women often have special barriers to surmount in order to continue breastfeeding after returning to the workplace. Although the literature does not find work itself to be a major deterrent for women in general (15), this is a particularly important consideration for the WIC population. The work environment of WIC recipients and other low-income women -- predominantly in low-paying jobs -- usually does not provide the flexibility needed to breastfeed in the workplace, or alternatively, to express and store milk. With increasing participation of women with young children in the workforce (23), the need for strategies which specifically address the special needs of the employed breastfeeding mother are of particular importance (5,10,12,23,24).

Marketing of Infant Formula. The infant formula industry's marketing practices have been identified as attracting many women away from breastfeeding (4,15,25). The advertising practices, in particular, have been criticized as being misleading and failing to give information about certain consequences of formula feeding (26). For example, formula advertisements usually fail to supply information regarding the negative consequences of formula-feeding, such

as no immunological protection and no contraceptive effects. Also, the distribution of industry-supplied free samples of formula by hospitals, as well as the provision of formula company literature and supplies to WIC programs, may be construed by some mothers as endorsements of bottle-feeding.

Cultural Barriers. Cultural practices, such as discarding colostrum or delaying initiation of breastfeeding until the breasts are full (22), can negatively affect successful lactation. Also, the Western view of the breast as a sex object, rather than as a source of nourishment for the baby, deters some women from breastfeeding, especially if it is reinforced by husbands or boyfriends. Many women also refrain from breastfeeding because of the belief that they will have to expose themselves in public (25).

In summary, women face many barriers which can deter them from making an initial decision to breastfeed and which can hinder their ability to breastfeed successfully. The deterrent effect of barriers such as lack of practical knowledge and lack of social support for breastfeeding are even greater for WIC participants and other low-income women because of their relative lack of formal education and their need to return to work as quickly as possible.

The eight sites selected for case study have developed explicit methods for countering many of the barriers discussed above. Exhibit 1 summarizes some of their strategies and approaches. These strategies and approaches will be further discussed as part of the cross-site analysis in chapter II and as part of the case study reports presented in chapter III.

EXHIBIT 1

OVERCOMING BARRIERS TO BREASTFEEDING: THE APPROACHES OF THE CASE STUDY SITES

Case Study Sites	Barriers					
	Mothers' Lack of Practical Knowledge	Lack of Exposure to Breastfeeding	Unsupportive Hospital Practices	Lack of Knowledge Among Professionals	Gap Between Hospital Discharge and Postpartum Appointment	Infant Formula Marketing Practices & the Availability of Formula
WIC St. Albans District Office (VT)	- Individual counseling - Home visits			- Conferences for health care professionals	- Home visits in early postpartum period	- Formula company representatives prohibited from visiting service sites
South Fulton Health Center (GA)	- Prenatal classes - Individual counseling	- Have resource mothers serve as role models for WIC participants	- Participation on county/hospital breastfeeding committee - Resource mothers as in-hospital counselors	- Staff training by resource mothers	- Postpartum telephone counseling by resource mothers	- Formula company representatives limited to contact with designated individuals
Near North Health Service WIC Program Chicago (IL)	- Prenatal classes - Individual counseling	- Invite breastfeeding women to prenatal class	- "Contract" with hospital to support breastfeeding	- Training for clinic staff	- Early postpartum appointment	- Formula bank account plan
Eau Claire City - County WIC Project (WI)	- Individual counseling - Prenatal classes	- Invite breastfeeding women to prenatal class			- Postcard sent from hospital by mother followed up by WIC initiated telephone counseling - Early postpartum appointment	
Centro de Salud Familiar La Fe, El Paso (TX)	- La Leche League sessions incorporated into WIC services	- La Leche League groups include breastfeeders and prenatal participants	- Lactation consultant training for local hospital staff	- Conferences for health care professionals		
South Health Center, Los Angeles (CA)	- Prenatal classes - Educational materials				- Early postpartum telephone call - Early postpartum appointment	- Advertising removed from posters - Formula company representatives prohibited from visiting service sites
NON-WIC MCH Migrant Health Project Newton Grove (NC)	- Prenatal classes	- Invite breastfeeding women to prenatal class	- Bilingual materials to help Hispanic women communicate with nurses			
Seattle-King County Breastfeeding Promotion Project (WA)	- Prenatal classes - Individual counseling - Expert clinical advice for difficulties	- Invite breastfeeding women to prenatal class	- Networking with hospital staff	- Professional workshop - Demonstrations - Developed two breastfeeding manuals	- Multiple early postpartum telephone calls	

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II. CROSS-SITE ANALYSIS OF ISSUES RELATING TO THE PROMOTION OF BREASTFEEDING IN WIC PROGRAMS

A. Overview of the 54 Participating WIC Sites

Fifty-four nominated local WIC agencies and service sites completed the mail survey. (A list of all participating local agencies and sites appears in appendix D.) The majority of sites were located in urban or suburban rather than rural areas. Caseload sizes ranged from 24 to 9,000 at individual service sites. The predominant ethnic group served was white at about two-thirds of the sites, while Blacks constituted the primary service recipients at about one-fourth of the sites. Only a few sites served predominantly Hispanic or Native American populations. Asians and other ethnic groups generally represented only a small proportion of the participants.

About two-thirds of the sites reported that the WIC services were integrated with other health and social services as defined by sharing an administrative structure or a chart recordkeeping system. Fewer than half reported that they received supplemental funding.

A variety of approaches, techniques, and strategies were used to promote and support breastfeeding. Most sites used interventions that were implemented in the prenatal and postpartum periods, such as individual counseling, group classes, materials development, and organization of mothers in support groups. Several sites included services to, and joint ventures with, hospital staff, such as providing consultant and inservice training, and the development of standards, protocols, and referral mechanisms.

B. Discussion of the 22 Studied Sites

1. Context

Detailed information concerning breastfeeding promotion strategies and approaches was gathered on 22 sites: 6 WIC and 2 non-WIC case study sites introduced in the previous chapter plus 14 other WIC sites included in the telephone followup phase of the study. The names and locations of the 22 sites are listed in exhibit 2 (see appendix C for a discussion of the 34 sites not chosen for further study). The 22 sites represent a range of geographic regions and locations, participant populations and administrative settings. Information concerning the participant and program characteristics of the sites is summarized in exhibits 3 through 6.

As shown in exhibits 5 and 6, all seven FNS regions are represented. Of the 22 sites, 17 are in urban or suburban communities of varying sizes, and 5 are in rural areas. With the exception of the St. Albans district office in Vermont, which uses a home delivery system of food distribution, all the sites use the retail purchase system.

Integration of WIC with prenatal health care services, as defined by sharing an administrative structure or a client recordkeeping system, is found in 9 of the 20 WIC sites. Of these, all but two also share staff with the prenatal service, the exceptions being Centro de Salud Familiar La Fe (La Fe Clinic) in Texas, and Eastern Health Center in Alabama. Both non-WIC projects use WIC sites for implementing part of their activities.

More than half the WIC sites (12) operate without supplemental funding, in the sense that their budget contains no funds other than regular WIC administrative funds. Adequate information about in-kind contributions is not available, however. A number of the sites listed as operating without supplemental funding may receive substantial in-kind contributions from the sponsoring agencies in the form of space, staff, printing, and other operating expenses.

The caseloads of the WIC sites range from 636 participants to 2,706, with various ethnic and racial groups predominating among the sites. As noted in exhibits 3 and 4, whites are the predominant group at 10 sites. Eight sites are predominantly Black; three, Hispanic; and one, Native American. Asians represent more than a fourth of the participant population at two of the sites.

Eleven of the WIC sites serve participants in all six WIC priority categories. One serves only the first three priorities. The remaining eight sites serve up to priorities IV and V. (WIC priorities are described in appendix A.)

Most sites (16) reported 25 percent or more of their prenatal caseloads were single mothers. Working mothers comprised 25 percent or more of the prenatal population at eight sites while mothers below the age of 19 were similarly represented at five sites. Three of the sites reported that 25 percent or more of their prenatal participants were illiterate.

2. Breastfeeding Promotion Approaches

Breastfeeding Promotion Activities. One of the most striking characteristics of the 22 studied sites is how many of their activities promote and support breastfeeding. Exhibits 7 through 14 note for each of the 22 sites the breastfeeding promotion approaches and strategies they employ during the prenatal, in-hospital, and postpartum periods.

The exhibits also note the breastfeeding promotion-related services provided to professionals, community members, and the families of participants. In the sections that follow, noteworthy breastfeeding promotion practices utilized by the studied sites are discussed.

Prenatal Strategies. Prenatal questionnaires which elicit infant feeding intentions, knowledge, and attitudes are used at three sites. The St. Alban's District Office (VT) and the Eau Claire City-County WIC Program (WI) mail questionnaires to new participants before prenatal certification. The participants then bring the completed questionnaires with them to their WIC

certifications. In the Near North Health Service (IL) a questionnaire developed by WIC with input from medical providers is filled out by the obstetric nurse practitioner as part of the obstetric intake process which precedes the WIC certification. The information is then available to both the obstetric medical providers and the WIC nutritionist.

Sites have addressed appointment compliance for nutrition education contacts in various ways. All WIC sites but one consistently coordinate nutrition education appointments with either voucher pickup or medical appointments or both. However, because Federal regulations prohibit WIC sites from requiring attendance at secondary nutrition education contacts in exchange for WIC vouchers, many sites experience poor attendance at classes scheduled subsequent to the certification.

Several of the sites studied have devised specific strategies to increase nutrition education contacts. For example, at the Eau Claire City-County WIC Program (WI), attendance at two prenatal classes is presented to new participants as the routine with which they are expected to comply. Prenatal participants are encouraged to attend the breastfeeding class plus one other class. A WIC newsletter, given to participants at each voucher pickup, includes the monthly schedule of classes.

South Health Center (CA) combines a short nutrition education class with every voucher pickup, and during the prenatal period the topics relate to breastfeeding. The same class topic is presented three times during a given morning or afternoon session, so women who come late to their appointed session attend the next class at the next hour. At the Near North Health Service (IL), participants sign a "contract" agreeing to attend a breastfeeding class in addition to their individual followup sessions.

In the Maternal and Child Health (MCH) Migrant Health Project at the Tri-County Health Center (NC), widely dispersed housing and a lack of public transportation, coupled with a perceived unimportance of prenatal care among the migrant participant population, make followup educational contacts especially difficult. As an incentive for class attendance, each prenatal participant who attends a secondary nutrition education appointment on breastfeeding receives a donated layette.

Incentives are used for different purposes at other sites. The Sixteenth Street WIC Program (WI) holds raffles for quilts donated by local community groups. The entry form for the raffle is a completed breastfeeding quiz which is designed to be a self-teaching tool. At the Plainfield WIC Program (NJ) an insulated mug is given to each woman who returns to certify herself as a breastfeeding mother.

Several novel techniques are used to encourage group participation in nutrition education classes. At La Fe Clinic (TX), the La Leche League leaders use an ice-breaker technique of passing around a basket containing items related to breastfeeding. Each participant selects an item, and states its relationship to breastfeeding. At the Near North Health Service (IL) the class leader passes out dolls so that participants may follow along as she demonstrates positioning and breastfeeding techniques. At Tri-County Health Center (NC) women wear name tags, and are called upon frequently by name to involve them in breastfeeding discussions emphasizing mother-related benefits. Each of these techniques is explained further in the next chapter.

In-hospital Strategies. Very few of the studied WIC sites directly support mothers during the hospital stay, although staff at over half the sites engage in some form of networking with hospital staff. Trained peer counselors provide bedside counseling for Fulton County Health Department WIC Program (GA) participants. A paraprofessional maternal and child health breastfeeding counselor provides similar services at Sells Clinic (AZ). Most sites provide women with the WIC phone number and encourage them to call from the hospital. Several sites initiate calls to women during their confinement.

The Near North Health Service (IL) has effected an important change in the delivering hospital through a signed agreement with the hospital, the health clinic, and the WIC program which specifies each party's responsibilities in promoting and supporting breastfeeding. One of the many provisions, for example, stipulates that the hospital will not include infant formula in the discharge packs for WIC participants who are breastfeeding.

Postpartum Strategies. It is well established that early postpartum support and assistance, within the first days and weeks after delivery, can make a crucial difference in breastfeeding outcome. While Federal WIC regulations allow a pregnant woman to be certified for the duration of pregnancy and up to 6 weeks postpartum, several of the studied sites have developed strategies to establish contact with participants much earlier during the postpartum period.

The Eau Claire WIC Program (WI) gives women stamped postcards to return as soon after delivery as possible. Upon receipt of the postcard, a WIC nutritionist calls the mother, provides counseling as necessary, using a simple telephone checklist, and sets up an early certification appointment, which generally occurs 2 to 4 weeks postpartum.

South Health Center (CA) achieves an early postpartum appointment by following the monthly schedule established in the prenatal period. If the delivery is on time, the mother comes to the center when the infant is from a few days old to a maximum of just under 1 month. If the delivery is late, the mother comes in and picks up prenatal vouchers, and the postpartum certification is set for the next month. WIC staff try to telephone participants prior to certification by using a tickler file arranged by the month of the expected date of delivery. They call 1 to 2 weeks before the due date in order to reach women who have early deliveries. If the mother has not delivered, the call is repeated the following week.

The Breastfeeding Promotion Project of the Seattle-King County Health Department (WA) also utilizes a tickler system and a similar method to reach mothers soon after delivery. If phone calls reveal that mothers are currently in the hospital, project public health nurses are then able to call the hospital to speak with mothers.

In South Fulton (GA), peer counselors see mothers in the hospital, call them a week after discharge to offer support, and make followup calls at least once a month for up to 6 months. As part of the Seattle-King County (WA) Breastfeeding Promotion Project, breastfeeding participants are followed for 6 months by public health nurses via clinic visits, home visits, and phone calls, depending upon need.

The Eastern Health Center (AL) uses a strategy of alternating telephone and postcard contact. A protocol established by the Center suggests topics for each call and the postcards contain information relevant to how long it has been since delivery. This followup process continues for up to 4 months postpartum.

Most sites offer breastfeeding classes during the postpartum period. Two are noteworthy for their peer-led support groups. In the Rockingham Community Action Program (NH), "The Breastfeeding Connection" provides a support group led by a WIC-trained peer counselor (herself a former WIC participant) and the WIC nutritionist. The La Leche League group at La Fe Clinic (TX) follows the La Leche League standard series of breastfeeding topics which includes getting started, overcoming difficulties, nutrition, and weaning.

Support to breastfeeding mothers is offered in ways other than counseling and teaching. At the Gary WIC program (IN), a sign is posted offering a private place for mothers to breastfeed while waiting for their appointments. The Haverhill Community Action Program WIC Program (MA) also provides mothers with a comfortable place to breastfeed. The Seattle-King County Breastfeeding Promotion Project (WA) loans out breast pumps and other nursing aids.

Comprehensive Strategies. A few sites have programs to provide more comprehensive services than are customary for a WIC site. In the St. Alban's District Office (VT), MCH and WIC funds are merged, enabling public health nurses (traditionally funded with MCH monies) to include WIC among their services. Public health nurses make home visits during both the prenatal and postpartum periods, and because they maintain individual caseloads, they are generally aware of their patients' due dates and are able to schedule visits shortly after hospital discharge, and to support and encourage breastfeeding at this time.

Peer counselors in South Fulton (GA) and Children's Hospital (DC) support women throughout the perinatal period. At Children's Hospital, the same counselor follows a mother for all contacts. At South Fulton, counselors follow individual mothers during the prenatal and postpartum periods, but rotate at the delivering hospital, with each working with whoever has delivered.

Other programs have developed strategies which bridge the prenatal and postpartum contacts. In the Emerado WIC Program (ND), each of the two nutritionists and the diet technician maintains a separate caseload. This helps participants build confidence and trust in their nutrition educator. At the Corvallis WIC Program (OR), student volunteers are trained to perform noncounseling tasks such as taking diet histories and heights and weights. This enables the nutritionists to spend more time counseling than would otherwise be possible. In the Mountainland WIC Program (UT), a telephone line in the nutritionist/coordinator's office is designated as a "nutrition hotline" to handle all nutrition questions, including breastfeeding. Because the coordinator is not engaged in certification or class activities, the phone calls are not disruptive to the clinic routine. Finally, lending libraries have been established in the Haverhill Community Action Program WIC Program (MA), the Eastern Health Center WIC Program (AL), and the Corvallis WIC Program (OR), giving mothers access to books on breastfeeding.

Reference Tools for Providers. A number of programs have developed assessment, counseling, and referral tools for health care providers. Some assist paraprofessionals and other staff, not expert in the field, to handle routine counseling, and make referrals to a more qualified person. The RAP sheet used at the South Health Center (CA) provides the counselor with questions to help her gather relevant information with which to make an assessment and suggest a plan to help the mother resolve her problems.

The Seattle-King County Breastfeeding Promotion Project (WA) and the Lawrenceberg WIC Clinic (IN) use similar reference tools. In Seattle, a manual assists health professionals, who counsel and make referrals to a lactation counselor. In Lawrenceberg, a hospital-based breastfeeding committee (in which WIC participates) developed protocols for solving common breastfeeding problems and a referral list of community resources for use by hospital nurses who answer the breastfeeding hotline.

The needs of Spanish-speaking participants were addressed by the MCH Migrant Health Project at Tri-County Community Health Center (NC) with the development of a small bilingual flip chart for use in hospitals. It contains simple messages in Spanish and English, including, "Bring me my baby. I want to breastfeed," to help Hispanic women communicate with nurses.

Two programs are involved with efforts to aid professionals in the selection of appropriate educational materials for WIC participants. As part of a Massachusetts State initiative, in which Haverhill Community Action Program WIC participated, a manual was developed entitled "E.M.P.O.W.E.R. -- Evaluate Materials to Promote Optimal Use of WIC Education Resources." Evaluation criteria for both print and visual media include sponsor bias or promotion, content, readability, stereotyping, format, and technical quality. It also reviews several readily available materials. The Breastfeeding Promotion Project at Seattle-King County (WA) participated in a committee which developed notebooks containing copies of brochures and suggestions for their appropriate use. Materials were carefully screened, and those judged to contain outdated information, poor presentation, or inappropriate reading levels for the participant population were eliminated.

Unique materials have been developed by two programs. Those developed by La Fe Clinic (TX) contain some imaginative materials including a "breast is best" crossword puzzle, and instructions for a game of breastfeeding bingo designed to inject an element of fun into a conference for health professionals. "Subtle Aspects of Breastfeeding," a videotape developed by the Seattle-King County Breastfeeding Promotion Project (WA), instructs health providers on positioning, attachment and suckling for the premature, newborn and older infant, and also addresses problem situations such as sore nipples, tongue sucking and infant preference of one breast. The videotape is available for purchase from the project.

Educational Materials for Participants. Several sites developed special materials to meet the needs of their participants. A user-centered approach was utilized at several of these. The Sixteenth Street WIC Program (WI) developed a slide show with the Milwaukee Task Force on Breastfeeding called "Simple Memories." The script was based on answers to questions asked of

breastfeeding mothers about what expectant and new mothers should know about breastfeeding. The slides were of the target population: white, Hispanic, and Hmong participants. The Seattle-King County Breastfeeding Promotion Project (WA) has produced a videotape showing mothers within the program expressing their thoughts on breastfeeding, such as why they like it; problems they have had in returning to work or school; and the person who has been most supportive. This video has allowed staff as well as pregnant women to share in the feelings of breastfeeding mothers ranging in age from teen age through middle age.

The Sells Clinic (AZ) used a similar technique to develop one-page problem/solution sheets for its Native American population. A trained breastfeeding peer counselor was asked to describe how to handle different breastfeeding problems. Her words, which reflected the appropriate complexity of language and the community vernacular, formed the basis for the final product.

A logo which embodies local characteristics was developed by the Sells Clinic site and used to adapt other materials to suit this population. A logo reflecting the Hispanic population and mountainous terrain of the Southwest was also developed by La Fe Clinic (TX).

The Seattle-King Breastfeeding Promotion Project (WA) is developing single half-sheet flyers designed to present information in a simple, graphic manner with minimal text. Each deals with only one subject such as supply and demand, positioning, and how to use a hand pump. They will be produced in several Asian languages as well as in Spanish.

An experimental technique has been undertaken by the Sutter County Health Department WIC Program (CA) to promote the idea that breastfeeding is the American way of infant feeding to non-English speaking immigrants. The nutritionist has combined slides which show a wide variety of American women engaged in breastfeeding with a music cassette of the ethnic group viewing the show.

Finally, a charcoal drawing poster of a Black woman breastfeeding with the logo "Breastfeeding is best feeding" was created by the Medical College of Georgia WIC Program, and is in use in several sites throughout the State.

Professional, Community, and Family Approaches. WIC sites can strengthen their impact by working with other health care providers serving the same population. Most sites report that staff engage in some form of professional networking, and many provide inservice training to medical professionals and their own staff.

The St. Alban's District Office (VT) takes advantage of regularly scheduled office-wide staff meetings for periodic breastfeeding updates. By providing all staff, including clerical, with basic knowledge about breastfeeding, they are able to refer participants with a breastfeeding problem to a nurse or nutritionist.

Utilizing a similar strategy, the Mountainland Head Start WIC Program (UT) schedules inservice training with obstetricians and pediatricians. At Children's Hospital WIC Program (DC) a one-page newsletter that is inexpensive to produce and photocopy is distributed to clinic and hospital staff. The lactation counselor at the Seattle-King County Breastfeeding Promotion Project (WA) provides hands-on training to other health care providers in clinic, hospital, and home setting, wherever services are provided for participants experiencing breastfeeding difficulties. In addition, formal training sessions are conducted for nurses and physicians.

The St. Albans (VT) WIC Program's Lactation Project and the La Fe Clinic WIC Program (TX) illustrate how WIC staff can be instrumental in stimulating breastfeeding awareness within the professional community. In St. Albans, a WIC-organized seminar involved local professionals and led to improved interaction and communication among professionals on breastfeeding issues as well as improving hospital support for breastfeeding. At La Fe Clinic, WIC-initiated professional outreach was first begun as a means to raise funds for a La Leche League group for WIC participants. The outreach now consists of an annual breastfeeding update conference which is supported by the department of nursing of a local university, as well as by the WIC program, the clinic, and the La Leche League.

Participation on hospital breastfeeding committees is an activity of about one third of the sites studied. WIC staff from two Georgia sites, the South Fulton Health Center and the Medical College of Georgia's MIC Program, are active members on their respective county-hospital lactation support committees. Each includes nurses from labor and delivery; obstetrics; maternity and neonatal care; patient education and the maternal and infant care project; pediatricians and obstetricians; outpatient clinicians; and WIC staff.

Local Agency Suggestions for Promoting Breastfeeding. From the local agency survey received from the sites noted earlier, a list of suggestions for promoting breastfeeding was compiled by study staff. This list of local agency suggestions appears as exhibit 15.

3. Breastfeeding Promotion Models

In considering breastfeeding promotion approaches, the study staff has found it useful to distinguish all the services provided by a site from what can be called a breastfeeding promotion model. For the purpose of this study, breastfeeding promotion models have been defined as sets of logically interdependent services or practices which were established to achieve specific breastfeeding goals. Models are more than individual discrete services and less than everything a site does.

Not all of the studied sites, even some which have quite successfully promoted breastfeeding, exemplify a specific breastfeeding promotion model. Often what they have done, instead, is bring together a number of logically independent services.

In the following sections four distinct breastfeeding promotion models observed during the case study visits are presented. They are:

- The Shared Staff Model, observed at the St. Albans District Office (VT)
- The Peer Breastfeeding Counselor Model, observed at the South Fulton Health Center (GA)
- The Community Network Model, observed at the Near North Health Service (IL)
- The Breastfeeding Counselor Model, observed at the Columbia Health Clinic, Seattle-King County Breastfeeding Promotion Project (WA)

No evaluative implication should be placed on the fact that breastfeeding promotion activities at four of the case study sites are referred to as models and four are not. The difference is not how effective or well implemented the services are, but rather, whether in the eyes of the case study researchers a number of discrete practices were logically interrelated. Both models and combinations of practices can be very effective with given populations, and in given settings.

The Common Staff Model: St. Albans District Office WIC Program (VT). The central feature of the shared staff model is that many of the same individuals who provide WIC services also provide maternal and child health (MCH) public health nursing and well child services. This organizational structure ensures that a consistently positive breastfeeding message is being conveyed, increases continuity of care, and simplifies postpartum support by eliminating the need to refer participants from one program to the other. The program's staff are able to encourage and support breastfeeding not only at certifications and nutrition education contacts at the service sites, but also as part of public health contacts in the participants' homes.

The Peer Breastfeeding Counselor Model: South Fulton Health Center (GA). The peer breastfeeding counselor model implemented at the South Fulton Health Center (GA) employs former WIC participants who have themselves breastfed. They are trained to be peer breastfeeding counselors, or resource mothers as they are called in this particular program. The resource mothers work with participants during the prenatal, in-hospital, and postpartum periods. A key component of the model is the linkages the local agency has developed with the delivering hospital, especially the cooperative relationship that has been established with the hospital's professional breastfeeding counselor. The resource mothers:

- conduct monthly breastfeeding classes;
- individually counsel participants in the clinic waiting room;
- develop and maintain a caseload of prenatal women interested in breastfeeding, and of postpartum breastfeeding women;
- establish telephone contact with their assigned women during the week before the expected delivery date;

- provide in-hospital bedside breastfeeding counseling to all of the local agency's WIC participants within 24 hours of delivery;

- make postpartum followup telephone calls to breastfeeding participants at least once a month, for up to 6 months;

- maintain detailed logs with information about the participants and each interaction; and

- provide other support and counseling as needed.

The Community Network Model: Near North Health Service (IL). The underlying assumption of the community network model is that effective breastfeeding promotion with inner-city minority participants can best be achieved if the WIC program services are integrated with or closely coordinated with those of prenatal, in-hospital, postpartum, and early pediatric health care providers. The Near North Health Services Corporation has implemented the community network model at the Near North Health Service as well as at two other health centers. Key components of the model at the Near North Health Service include:

- a strong, cooperative working relationship among the hospital, health center, and WIC program;

- a formal contract which specifies which breastfeeding-related services will be provided by hospital, health clinic, and WIC program staff;

- breastfeeding promotion training for nurses, doctors, WIC program staff and clerical staff;

- common strategies to motivate prenatal participants to try breastfeeding;

- common strategies to support participants who initiate breastfeeding; and

- improved breastfeeding assessment, tracking, and evaluation forms and procedures.

The Breastfeeding Counselor Model: Columbia Health Center (WA). The breastfeeding counselor model observed at the Columbia Health Center is part of a more encompassing Breastfeeding Promotion Project jointly sponsored by Washington State and the Seattle-King County Health Department. The essential parts of this model are the services provided by a group of highly trained and supplementally funded project staff. At Columbia Clinic the project funds a public health nurse to work half-time as a breastfeeding counselor; a masters-level nutritionist to work half-time as the breastfeeding task force coordinator, and a highly experienced nurse practitioner to work quarter-time as the clinic's lactation consultant.

The project staff directly provides services to health clinic patients and WIC program participants and also works with health center and WIC program staff to develop their breastfeeding promotion skills. Services include:

- individual counseling and teaching;
- prenatal breastfeeding classes;
- intensive postpartum followup on site, by telephone, and through home visits;
- expert clinical management of breastfeeding problems;
- breastfeeding promotion and support training provided through short inservice training to the health center's obstetrical nurses, visiting public health nurse, and WIC staff; and
- several day-long breastfeeding promotion workshops organized for public health center and WIC program staff from throughout the region.

EXHIBIT 2

LOCAL AGENCIES AND SERVICE SITES IN THE CROSS-SITE ANALYSIS

All the local agencies and service sites that are cited in the cross-site analysis are listed below, alphabetically, along with the States or jurisdictions in which they are located.

SITE	LOCATION
Childrens' Hospital Comprehensive Care Clinic WIC	District of Columbia
Corvallis WIC Program	Oregon
Eastern Health Center	Alabama
Eau Claire City-County WIC Project[1]	Wisconsin
Emerado WIC Program	North Dakota
Fulton Country Health Department WIC[2]	Georgia
Gary WIC Clinic	Indiana
Haverhill Community Action Program WIC	Massachusetts
La Fe Clinic WIC (Centro de Salud Familiar La Fe)[1]	Texas
Lawrenceberg WIC Clinic	Indiana
Medical College of Georgia WIC Program	Georgia
Mountainland WIC	Utah
Near North Health Service WIC Program[1]	Illinois
Near North Health Services Corp.[2]	Illinois
Plainfield WIC Program	New Jersey
Rockingham Community Action Program WIC	New Hampshire
Seattle-King County Breastfeeding Promotion Project[3]	Washington
Sells Clinic	Arizona
Sixteenth Street WIC	Wisconsin
South Fulton Health Center[1]	Georgia

South Health Center[1]	California
St. Albans District Office[1]	Vermont
Sutter County Health Department WIC	California
Tri-County Health Center[3]	North Carolina

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[1]Case study site-WIC
[2]Local agency affiliated with case study site
[3]Case study site - non-WIC

EXHIBIT 3

PARTICIPANT CHARACTERISTICS: CASE STUDY SITES

Sites (by Region)	Ethnic/Racial Composition		Prenatal Caseload Characteristics 25 Percent or More of Prenatal Participants Are:				
	Predominant Group	Other Significant Groups[a]	Single Mothers	Mothers 18 or Under	Working Mothers	Migrant Workers	Illiterate in English
WIC							
Northeast							
St. Albans District Office (VT)	White		x				
Southeast							
South Fulton Health Center (GA)	Black		x	x			
Midwest							
Near North Health Service, Chicago (IL)	Black	Hispanic	x				
Midwest							
Eau Claire City-County WIC Project (WI)	White	Hmong	x		x		
Southwest							
Centro de Salud Familiar La Fe, El Paso (TX)	Hispanic		x	x			x
Western							
South Health Center, Los Angeles (CA)	Hispanic	Black					
NON-WIC							
Southeast							
MCH Migrant Health Project Newton Grove (NC)	Hispanic				x	x	x
Western							
Seattle-King County Breastfeeding Promotion Project (WA)[b]	Black	Asian		x			

[a] 25% or more of caseload.

[b] Reflects entire WIC caseload.

EXHIBIT 4

PARTICIPANT CHARACTERISTICS: TELEPHONE FOLLOWUP SITES

Sites (by region)	Ethnic/Racial Composition		Prenatal Caseload Characteristics 25 Percent or More of Prenatal Participants Are:				
	Predominant Group	Other (a) Significant Groups	Single Mothers	Mothers 18 or Under	Working Mothers	Migrant Workers	Illiterate in English
WIC							
Northeast							
Haverhill Community Action Program WIC (MA)	White		x	x	x		
Rockingham Community Action Program - Derry Site (NH)	White		x		x		
Mid-Atlantic							
Children's Hospital Comprehensive Care Clinic (DC)	Black		x		x		
Plainfield WIC Program (NJ)	Black		x	x			
Southeast							
Eastern Health Center, Birmingham (AL)	Black	White	x				
Medical College of Georgia - M&I Program, Augusta (GA)	Black	White	x		x		
Midwest							
Lawrenceberg WIC Clinic (IN)	White		x				
Lake Area United Way/ Gary WIC Program (IN)	Black		x				
16th Street WIC, Milwaukee, (WI)	White	Hispanic/ Asian	x				
Mountain Plains							
Emerado WIC Program, Bismarck (ND)	White						
Mountainland Head Start WIC, Provo (UT)	White		x		x		
Western							
Sells Clinic (AZ)	Native American	Hispanic			x		x
Sutter County Health Department WIC (CA)	White		x				
Corvallis WIC Program (OR)	White						

(a) Representing 25% or more of caseload.

EXHIBIT 5
PROGRAM CHARACTERISTICS: CASE STUDY SITES

Sites (by Region)	Local Agency Sponsorship	Geographic Area Served	Integrated w/Prenatal Health Care Services	Supplemental Funding [a]	Site Caseload (as of 10/86)	Shares Staff With Other Agency or Program	Food Distribution System	Highest Priority Served
WIC								
Northeast								
St. Albans District Office (VT)	Regional/district health department	Rural	Yes	No [b]	1,981 [d]	Yes	Home delivery	VI
Southeast								
South Fulton Health Center (GA)	County Health department	Urban/suburban	Yes	Yes	820	Yes	Retail purchase	III
Midwest								
Near North Health Service, Chicago (IL)	Neighborhood/community health agency	Urban/suburban	Yes	Yes	636 [e]	Yes	Retail purchase	VI
Midwest								
Eau Claire City - County WIC Project (WI)	County health department	Urban/suburban	No	No	1,329	No	Retail purchase	V
Southwest								
Centro de Salud Familiar La Fe, El Paso (TX)	Neighborhood/community health department	Urban/suburban	Yes	Yes [c]	1,297	No	Retail purchase	IV
Western								
South Health Center, Los Angeles (CA)	Private nonprofit medical research and education institute	Urban/suburban	No	No	2,706 [h]	No	Retail purchase	VI
NON-WIC								
Southeast								
MCH Migrant Health Project at Newton Grove (NC)	Federally funded migrant clinic	Rural	Yes	SPRANS [g] grant/DHHS	400 [e][f]	NA	NA	NA
Western								
Seattle-King County Breastfeeding Promotion Project (WA)	County health department	Urban/suburban	Yes	SPRANS [g] grant/DHHS	1,050 [e][f]	NA	NA	NA

[a] Receives funds in addition to regular administrative funds. Does not include in-kind contribution from sponsoring agency.

[b] Combines WIC, MCH, child Medicaid funds, no supplemental funds are received.

[c] Project activities raise small amount of supplemental funds. (See Chapter III)

[d] Covers all six satellite sites served by common staff.

[e] Summer 1987.

[f] Caseload of associated WIC program.

[g] Special Project of Regional and National Significance.

[h] September 1987.

EXHIBIT 6

PROGRAM CHARACTERISTICS: TELEPHONE FOLLOWUP SITES

Sites (by Region)	Local Agency Sponsorship	Geographic Area Served	Integrated w/Prenatal Health Care Services	Supplemental Funding (a)	Site Caseload (as of 10/86)	Shares Staff with Other Agency or Program	Food Distribution System	Highest Priority Served
WIC								
Northeast								
Haverhill Community Action Program WIC (MA)	Community action program	Urban/suburban	No	No	Not available	No	Retail purchase	V
Rockingham Community Action Program - Derry Site (NH)	Community action program	Rural	No	Yes	260 (b)	No	Retail purchase	VI
Mid-Atlantic								
Children's Hospital Comprehensive Care Clinic (DC)	Regional/district health department - hospital	Urban/suburban	No	Yes	1,200 (b)	No	Retail purchase	VI
Plainfield WIC Program (NJ)	County health department	Urban/suburban	No	No	3,014	No	Retail purchase	VI
Southeast								
Eastern Health Center, Birmingham (AL)	County health department	Urban/suburban	Yes	No	2,422	No	Retail purchase	VI
Medical College of Georgia - M&I Program, Augusta (GA)	County health department	Urban/suburban	Yes	Yes	482	Yes	Retail purchase	VI
Midwest								
Lawrenceberg WIC Clinic (IN)	Hospital	Rural	No	No	390	No	Retail purchase	V
Lake Area United Way/ Gary WIC Program (IN)	United Way agency	Urban/suburban	No	No	3,914	No	Retail purchase	V
16th Street WIC, Milwaukee (WI)	Neighborhood/community health agency	Urban/suburban	Yes	Yes	2,440	Yes	Retail purchase	V
Mountain Plains								
Emerado WIC Program Bismarck (ND)	Neighborhood/community health agency	Urban/suburban	No	No	666	No	Retail purchase	V
Mountainland Head Start WIC, Provo (UT)	Head Start	Urban/suburban	No	No	5,700	No	Retail purchase	VI
Western								
Sells Clinic (AZ)	Indian health agency	Rural	Yes	Yes	810	Yes	Retail purchase	VI
Sutter County Health Department WIC (CA)	County health department	Urban/suburban	Yes	No	1,045 (c)	Yes	Retail purchase	IV
Corvallis WIC Program (OR)	United Way agency	Urban/suburban	No	No	379	No	Retail purchase	VI

(a) Receives funds in addition to regular WIC administrative funds. Does not include in-kind contribution from sponsoring agency.

(b) Summer 1987.

(c) Covers three (3) satellites served by same staff.

EXHIBIT 7

PRENATAL BREASTFEEDING APPROACHES OF CASE STUDY SITES	WIC							Non-WIC	
	Northeast St. Albans District Office (VT)	Southeast South Fulton Health Center (GA)	Midwest Near North Health Service, Chicago (IL)	Midwest Eau Claire City-County WIC Project (WI)	Southwest Centro de Salud Familiar La Fe, El Paso (TX)	Western South Health Center, Los Angeles (CA)	Southeast MCH Migrant Health Project, Newton Grove (NC)	Western Seattle-King County Breastfeeding Promotion Project (WA)	
EDUCATIONAL AND SUPPORT SERVICES									
Individual breastfeeding counseling	x	x	x	x	x	x	x	x	
Breaatfeeding class	x	x	x	x	x	x	x	x	
Breaatfeeding women serve aa role modela for prenatal participants		x	x	x	x		x	x	
Written educational materiala	x	x	x	x	x	x	x	x	
Audiovisual materiala	x	x	x	x	x	x	x	x	
Servicea in language other than English			x	x	x	x	x	x	
Special culturally appropriate materials developed	x				x	x		x	
Home viaita	x								
Telephone counseling									
Postcards for followup		x							
Participant newaletter			x						
Incentivea to increaae class partici-pation or choice of breastfeeding							x		
Lending library									
Community outreach			x						
SCHEDULING									
More than two nutrition education appointmenta scheduled during prenatal period			x	x	x	x	x	x	

EXHIBIT 7 (Continued)

PRENATAL BREASTFEEDING APPROACHES OF CASE STUDY SITES

(CONTINUED)

	WIC							Non-WIC	
	Northeast St. Albans District Office (VT)	Southeast South Fulton Health Center (GA)	Midwest Near North Health Service, Chicago (IL)	Midwest Eau Claire City-County WIC Project (WI)	Southwest Centro de Salud Familiar La Fe, El Paso (TX)	Western South Health Center, Los Angeles (CA)	Southeast MCH Migrant Health Project, Newton Grove (NC)	Western Seattle-King County Breastfeeding Promotion Project (WA)
SCHEDULING (Continued)								
Nutrition education appointment coordinated with voucher pickup or medical appointment		x	x	x	x	x	x	
ENVIRONMENT								
Breastfeeding posters and pictures displayed		x	x	x	x	x	x	x
Formula products and promotional items removed from view				x				
Breastfeeding pamphlets available in waiting area		x	x	x	x	x		
STAFF								
Paraprofessional staff for nutrition education	x		x		x	x	x	
Paid peer counselors	x							
Volunteer counselors								
Noncounselor volunteers (e.g., collect lab data, do diet interviews)								
Community-based groups (e.g., La Leche League)			x	x	x	x	x	

EXHIBIT 8

PRENATAL BREASTFEEDING APPROACHES OF TELEPHONE FOLLOWUP SITES	WIC: Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program - Derry Site (NH)	Mid-Atlantic Children's Hospital Comprehensive Care Clinic (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center Birmingham (AL)	Southeast Medical College of Georgia M&I Program, Augusta (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 16th Street WIC, Milwaukee (WI)	Mountain Plains Emerado WIC Program Bismarck (ND)	Mountain Plains Mountainland Head Start WIC, Provo (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
EDUCATIONAL AND SUPPORT SERVICES														
Individual breastfeeding counseling	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Breastfeeding class		x	x		x	x	x	x	x	x	x	x	x	x
Breastfeeding women serve as role models for prenatal participants		x	x			x	x	x			x		x	x
Written educational materials		x	x	x	x	x	x	x	x	x	x	x	x	x
Audiovisual materials		x	x	x	x	x	x	x	x	x	x	x	x	x
Services in language other than English	x		x	x					x		x	x	x	
Special culturally appropriate materials developed	x[a]								x			x	x	
Home visits														
Telephone counseling			x							x				
Postcards for followup			x											
Participant newsletter									x					
Incentives to increase class participation or choice of breastfeeding				x		x								
Lending library	x				x									x
Community involvement														
SCHEDULING														
More than two education appointments scheduled during prenatal period	x	x		x		x	x	x	x	x	x	x	x	x

[a] Developed by State Agency.

EXHIBIT 8 (Continued)

PRENATAL BREASTFEEDING APPROACHES OF TELEPHONE FOLLOWUP SITES (CONTINUED)	WIC													
	Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program (NH)	Mid-Atlantic Mid-Atlantic Children's Hospital Comprehensive Care Clinic - Derry Site (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center Birmingham (AL)	Southeast Medical College of Georgia M&I Program, Augusta (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 16th Street WIC, Milwaukee (WI)	Mountain Plains Emerado WIC Program Bismarck (ND)	Mountain Plains Mountainland Head Start WIC, Provo (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
SCHEDULING (Continued)														
Nutrition education appointment coordinated with voucher pickup or medical appointment	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ENVIRONMENT														
Breastfeeding posters and pictures displayed	x	x	x	x			x	x	x	x	x	x	x	x
Formula products and promotional items removed from view	x	x					x			x	x	x	x	x
Breastfeeding pamphlets available in waiting area	x	x		x	x				x	x	x	x		
STAFF														
Paraprofessional staff for nutrition education				x	x		x			x		x		
Paid peer counselors		x	x											
Volunteer counselors	x					x			x					
Noncounselor volunteers (e.g., collect lab data, do diet interviews)														x
Community-based groups (i.e., La Leche League)	x	x				x	x		x	x	x			x

EXHIBIT 9

POSTPARTUM BREASTFEEDING APPROACHES OF CASE STUDY SITES	WIC							Non-WIC
	Northeast St. Albans District Office (VT)	Southeast South Fulton Health Center (GA)	Midwest Near North Health Service, Chicago (IL)	Midwest Eau Claire City-County WIC Project (WI)	Southwest Centro de Salud Familiar La Fe, El Paso (TX)	Western South Health Center, Los Angeles (CA)	Southeast MCH Migrant Health Project, Newton Grove (NC)	Western Seattle-King County Breastfeeding Promotion Project (WA)
EDUCATIONAL/SUPPORT SERVICES								
Individual breastfeeding counseling	x	x	x	x	x	x	x	x
Breastfeeding class		x	x	x	x			
Breastfeeding included as topic in infant class			x		x	x		
Special followup counseling protocols						x		x
Written educational materials	x	x	x	x	x	x	x	x
Audiovisual materials		x	x	x	x			
Services in language other than English			x	x	x	x	x	x
Special culturally appropriate materials developed					x	x		
Home visits	x							x
Telephone counseling: Project initiated	x	x	x	x	x	x		x
Participant initiated (e.g., hotline)	x	x	x	x	x	x		x
Postcards for followup				x				x
Participant newsletter				x				
Lending library								
Breastfeeding equipment lending or renting service								x
Comfortable/private place to breastfeed				x				
Incentives to improve duration of breastfeeding			x					

EXHIBIT 9 (Continued)

POSTPARTUM BREASTFEEDING APPROACHES OF CASE STUDY SITES (CONTINUED)	WIC							Non-WIC	
	Northeast St. Albans District Office (VT)	Southeast South Fulton Health Center (GA)	Midwest Near North Health Service, Chicago (IL)	Midwest Eau Claire City-County WIC Project (WI)	Southwest Centro de Salud Familiar La Fe, El Paso (TX)	Western South Health Center, Los Angeles (CA)	Southeast MCH Migrant Health Project, Newton Grove (NC)	Western Seattle-King County Breastfeeding Promotion Project (WA)
SCHEDULING								
Early postpartum appointment			x	x		x	x	x
WIC appointment coordinated with medical appointment			x					
FORMULA POLICIES								
No formula provided to breastfeeding women during early weeks								
Formula routinely provided to breastfeeding women	x	x						
Formula provided only if requested			x	x	x	x		
STAFF								
Paraprofessional staff for nutrition education			x		x	x		
Paid peer counselors		x						
Volunteer counselors					x			
Noncounselor volunteers (e.g., collect lab data, do diet interviews)								
Community-based groups (i.e., La Leche League)				x	x			

EXHIBIT 10

POSTPARTUM BREASTFEEDING APPROACHES OF TELEPHONE FOLLOWUP SITES	WIC: Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program - Derry Site (NH)	Mid-Atlantic Children's Hospital Comprehensive Care Clinic (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center Birmingham (AL)	Southeast Medical College of Georgia MCI Program, Augusta (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 15th Street WIC, Milwaukee (WI)	Mountain Plains Emerado WIC Program, Bismarck (ND)	Mountain Plains Mountainland Head Start WIC, Provo (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
EDUCATIONAL/SUPPORT SERVICES														
Individual breastfeeding counseling	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Breastfeeding class		x	x	x		x	x				x			x
Breastfeeding included as topic in infant nutrition class					x				x					
Special followup counseling protocols					x	x								
Written educational materials	x	x	x	x	x	x	x		x	x	x		x	x
Audiovisual materials		x	x	x	x	x	x		x	x	x			x
Services in language other than English	x		x					x	x			x	x	
Special culturally appropriate materials developed														
Home visits												x		
Telephone counseling:														
WIC initiated	x	x	x		x	x	x	x	x	x				
Participant initiated (e.g., hotline)	x	x			x	x	x	x	x	x	x	x	x	x
Postcards for followup			x		x		x							
Participant newsletter												x		
Lending library	x													
Breastfeeding equipment lending or renting service	x											x		
Comfortable/private place to breastfeed	x							x						

EXHIBIT 10 (Continued)

POSTPARTUM BREASTFEEDING APPROACHES OF TELEPHONE FOLLOWUP SITES

(CONTINUED)

	WIC													
	Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program - Derry Site (NH)	Mid-Atlantic Children's Hospital Comprehensive Care Clinic (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center Birmingham (AL)	Southeast Medical College of Georgia M&I Program, Augusta (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 16th Street WIC, Milwaukee (WI)	Mountain Plains Emerado WIC Program Bismarck (ND)	Mountain Plains Mountainland Head Start WIC, Provo (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
SCHEDULING														
Early postpartum appointment	x			x		x	x	x		x	x	x	x	
WIC appointment coordinated with medical appointment	x				x	x						x		
FORMULA POLICIES														
No formula provided to breastfeeding women during early weeks	x		x		x	x	x			x			x	x
Formula routinely provided to breastfeeding women				x				x			x			
Formula provided only if requested		x							x			x		
STAFF														
Paraprofessional staff for nutrition education						x				x		x	x	
Paid peer counselors		x	x									x		
Volunteer counselors	x					x			x					
Noncounselor volunteers (e.g., collect lab data, do diet interviews)														x
Community-based groups (i.e., La Leche League)	x	x				x		x	x	x				

EXHIBIT 11

IN-HOSPITAL BREASTFEEDING APPROACHES OF CASE STUDY SITES	WIC							Non-WIC	
	Northeast St. Albans District Office (VT)	Southeast South Fulton Health Center (GA)	Midwest Near North Health Service, Chicago (IL)	Midwest Eau Claire City-County WIC Project (WI)	Southwest Centro de Salud Familiar La Fe, El Paso (TX)	Western South Health Center, Los Angeles (CA)	Southeast MCH Migrant Health Project, Newton Grove (NC)	Western Seattle-King County Breastfeeding Promotion Project (WA)
Bedside counseling								
By peer counselor		x						
By public health nurse	x							
By non-WIC staff (non-WIC projects only)							x	x
Telephone counseling								
Mothers called	x							
WIC phone number (other phone number for non-WIC projects) provided	x	x	x	x	x	x	x	x
Referral to non-WIC "hotline"	x	x	x		x			
Postcards for followup								
Networking with hospital staff	x	x	x		x			x
Services in language other than English								
Bilingual materials developed to facilitate patient - staff communication							x	

EXHIBIT 12

IN-HOSPITAL BREASTFEEDING APPROACHES OF TELEPHONE FOLLOWUP SITES	WIC														
	Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program - Derry Site (NH)	Mid-Atlantic Children's Hospital Comprehensive Care Clinic (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center Birmingham (AL)	Southeast Medical College of Georgia MCH Program, Augusta (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 16th Street WIC, Milwaukee (WI)	Mountain Plains Emerado WIC Program (ND)	Mountain Plains Mountainland Head Start WIC, Provo (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
Bedside counseling														
By peer counselor		x									x			
By public nurse					x									
By WIC nutritionist												x		
Telephone counseling														
Mothers called		x		x	x			x			x			
WIC phone number provided	x	x		x	x	x	x	x			x	x	x	
Referral to non-WIC "hotline"				x	x	x		x			x	x		
Postcards for followup														
Networking with hospital staff		x		x	x	x			x	x	x	x		
Services in language other than English		x									x	x		
Bilingual materials developed to facilitate patient - staff communication														

EXHIBIT 13

PROFESSIONAL, COMMUNITY AND FAMILY APPROACHES OF CASE STUDY SITES	WIC							Non-WIC	
	Northeast St. Albans District Office (VT)	Southeast South Fulton Health Center (GA)	Midwest Near North Health Service, Chicago (IL)	Midwest Eau Claire City - County WIC Proj. (WI)	Southwest Centro de Salud Familiar La Fe, Inc. (TX)	Western South Health Center (CA)	Southeast MCH Migrant Health Project, Newton Grove (NC)	Western Seattle-King County BF Promotion Project at Columbia Clinic (WA)
HEALTH CARE PROVIDERS								
Networking with medical care providers	x	x	x		x	x	x	x
Inservice training for obstetric and/or pediatric medical care providers	x	x	x		x	x	x	x
Educational materials shared with medical care providers	x	x	x		x	x	x	x
Inservice training for local agency staff	x		x		x	x		
Services coordinated with hospital/clinic staff	x	x	x				x	x
Participation on hospital breastfeeding committees		x	x		x			
Professional newsletter								
COMMUNITY								
Public service announcements								
Newspaper articles					x			
Outreach to schools			x	x				
Presentations to community groups and organizations			x	x	x			
Networking with community organizations	x		x	x	x			
FAMILY								
Family members included in education services	x	x	x		x		x	x
Educational materials distributed which target other family members	x	x	x	x	x			x

EXHIBIT 14

PROFESSIONAL, COMMUNITY AND FAMILY APPROACHES OF TELEPHONE FOLLOWUP SITES	WIC													
	Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program - Derry Site (NH)	Mid-Atlantic Children's Hospital Comprehensive Care Clinic (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center (AL)	Southeast Medical College of Georgia - MIC Program (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 16th Street WIC (WI)	Mountain Plains Emerado WIC Program (ND)	Mountain Plains Mountainland Head Start WIC (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
HEALTH CARE PROVIDERS														
Networking with medical care providers		x	x	x		x			x	x		x		
Inservice training for obstetric and/or pediatric medical care providers	x				x	x	x	x	x	x	x	x	x	
Educational materials shared with medical care providers	x	x	x		x	x	x		x	x	x	x	x	
Inservice training for local agency staff		x												
Services coordinated with hospital/ clinic staff						x				x		x	x	
Participation on hospital committees						x					x	x		
Professional newsletter			x											
COMMUNITY														
Public service announcements		x		x									x	
Newspaper articles	x	x			x					x	x		x	
Outreach to schools	x	x	x	x		x							x	
Presentations to community groups and organizations		x	x	x	x	x	x				x		x	
Networking with community organizations	x	x		x	x	x	x			x	x		x	x

EXHIBIT 14 (Continued)

PROFESSIONAL, COMMUNITY AND FAMILY APPROACHES OF TELEPHONE FOLLOWUP SITES (CONTINUED)	WIC													
	Northeast Haverhill Community Action Program WIC (MA)	Northeast Rockingham Community Action Program - Derry Site (NH)	Mid-Atlantic Children's Hospital Comprehensive Care Clinic (DC)	Mid-Atlantic Plainfield WIC Program (NJ)	Southeast Eastern Health Center Birmingham (AL)	Southeast Medical College of Georgia M&I Program, Augusta (GA)	Midwest Lawrenceberg WIC Clinic (IN)	Midwest Lake Area United Way/Gary WIC Program (IN)	Midwest 16th Street WIC, Milwaukee (WI)	Mountain Plains Emerado WIC Program Bismarck (ND)	Mountain Plains Mountainland Head Start WIC, Provo (UT)	Western Sells Clinic (AZ)	Western Sutter County Health Department WIC (CA)	Western Corvallis WIC Program (OR)
FAMILY														
Family members included in education services	x	x			x	x			x	x			x	x
Educational materials distributed which target other family members		x		x		x							x	

EXHIBIT 15

LOCAL AGENCY SUGGESTIONS FOR PROMOTING BREASTFEEDING

Planning

- Learn about the participant population
- Establish a statistical baseline against which to evaluate your efforts
- Determine if the problem is one of low initiation of breastfeeding, short duration, or both
- Identify and understand the underlying factors for low incidence and/or short duration of breastfeeding
- Prioritize the needs of the participant population, i.e., more information in the prenatal period, followup support in the very early postpartum period, etc.
- Set realistic and achievable goals and objectives given the available resources

Scheduling

- Talk to women early in their pregnancy
- Schedule frequent opportunities for nutrition education
- Coordinate nutrition education with voucher pickup or medical appointments
- Schedule a WIC appointment soon after hospital discharge
- Send postcard or call to remind participant of postpartum appointment and/or classes

Environment

- Display attractive and culturally appropriate breastfeeding posters and pictures
- Make pamphlets available in waiting area
- Remove formula products and promotional items from counseling area
- Provide a private area for counseling
- Provide a private area for breastfeeding

Educational services

- Provide breastfeeding counseling to all women
- Schedule special breastfeeding classes and support groups
- Provide spontaneous classes in waiting area
- Invite breastfeeding mothers to talk to prenatal participants
- Encourage women to bring partners or other support persons to educational sessions
- Distribute nonformula gifts as incentives
- Provide services in language other than English
- Use audiovisual materials to reinforce concepts from counseling and classes
- Establish a breastfeeding hotline

Educational technique

- Establish eye contact
- Develop rapport
- Encourage participants to express their concerns
- Address participants' expressed concerns, anticipate other concerns
- Focus on positive aspects of breastfeeding while still preparing participants to avoid and manage potential problems
- Expose participants to breastfeeding information prior to bottle-feeding information
- Ensure that educational session is free from interruptions

Educational materials

- Use materials that communicate visually and use simple words or text
- Use culturally appropriate materials
- Choose posters that model discreet ways of breastfeeding in public
- Select materials that are sensitive to the sexual mores of the community
- Screen all materials supplied by formula companies carefully for advertising, inappropriate reference to formula or weaning, and correctness and utility of information
- Target materials to influential family members and friends

In the hospital

- Counsel mothers and provide assistance at bedside
- Call mothers in hospital
- Ask mothers to call WIC program from hospital
- Work with hospital providers to develop protocols supportive of breastfeeding

Infant formula policies

- Avoid providing formula to breastfeeders during the early weeks
- Provide counseling and assistance prior to providing any formula to breastfeeding mothers
- Avoid gifts from infant formula company representatives
- Limit access of formula company representatives to staff

Support

- Provide child care for other children during educational sessions
- Provide transportation or reimburse cost of transportation to attend educational sessions

Extension of staff

- Train experienced breastfeeders to provide peer support to mothers
- Utilize community-based groups such as La Leche League and Expanded Food and Nutrition Program (EFNEP) of the Cooperative Extension Service
- Utilize paraprofessionals to provide routine aspects of nutrition education to free professional time for high risk or specialized counseling

Staff training

- Attend professional workshops and conferences on breastfeeding
- Purchase and make available to all staff a comprehensive reference text on breastfeeding
- Read current literature and schedule time for staff discussions

Provider networks

- Participate in community/clinic/hospital-based lactation committees
- Share educational materials and training resources with other providers
- Provide inservice training to other providers
- Establish referral systems among providers
- Coordinate educational activities among providers

In the community

- Publish or contribute to a health center or community newsletter
- Submit articles to newspapers
- Broadcast public service announcements
- Address community groups, employers, school students
- Utilize the media to publicize conferences and other activities

III. THE CASE STUDY REPORTS

The goal of the case study visits to the eight selected sites was to identify how the sites promote and support breastfeeding among their participants. Each case study was conducted by a team consisting of a nutritionist with WIC experience and a social scientist familiar with case study methodologies. During each 3-day site visit, the research team gathered information through structured and unstructured interviews, observations, and the review of documents. (A more detailed discussion of the study methodology is contained in appendix B.)

The case studies which follow are descriptions and not evaluations. Because of the paucity of good historical or comparative data at most of the sites, program or intervention effectiveness could not be rigorously and independently measured. However, the case study methodology, relying as it does on multiple sources of evidence, does allow the researcher to make summative statements based on agreement found among statistical, interview, observational, and documentary data.

Each of the case study reports is divided into five major sections:

- Overview highlights in table form the basic information concerning the site and its breastfeeding promotion activities;
- Context presents the program and participant characteristics and notes specific constraints and resources of the sites;
- Intervention describes the breastfeeding activities undertaken by the sites as well as their service provision plans;
- Outcomes presents the reported results of the interventions; and
- Summary reemphasizes the important elements in each site description.

More information on the breastfeeding activities of the sites studied can be obtained by contacting the local agencies. A list of the names, addresses, and telephone numbers of the sites appears as appendix D.

St. Albans District
Vermont State Health Department
The Shared Staff Model

I. Overview

- **Local Agency Name:** St. Albans District WIC Program
- **Type of Local Agency:** Health department
- **Service Site Name:** St. Albans and Grand Isle (two of six sites served by common staff)
- **Location:** Two-county rural area in northwestern Vermont
- **Service Site Staff:** Public health nurse
  Nutritionist
  One to two outreach specialists
  Clerk
- **Funding Sources:** WIC funds;
  MCH funds;
  Child Medicaid funds;
  In-kind services not applicable due to funding integration
- **Caseload:** 1,800 (Priorities I-VI)
- **Food Distribution System:** Home delivery
- **Ethnicity:** White - 99 percent
  Native American - less than 1 percent
- **WIC Service Location:** Participant services located in local churches; administrative offices located in district health department
- **Outside Services Integrated with WIC:** Maternal and Child Health (MCH)
  Partners in Health (Medicaid)
- **Key Breastfeeding Promotion Activities:**
  - Use of an infant feeding survey;
  - Prenatal and postpartum home visits;
  - Prenatal class on breastfeeding;
  - Early postpartum followup and WIC certification; and
  - Ongoing staff training.

II. Context

A. Community and Participant Characteristics

The St. Albans District WIC Program covers a two-county area in northwestern Vermont and serves several rural communities, the largest of which is St. Albans, with a population of about 8,000. Franklin and Grand Isle Counties, which make up the district, have a total population of 44,000. There is no public transportation.

The district is served by two hospitals: Northwestern Medical Center, a small community hospital in St. Albans, and the Medical Center Hospital of Vermont, a large tertiary care facility in Burlington, about 30 miles away from St. Albans. Clients living in the northern areas of Flanklin and Grand Isle counties could travel up to 60 miles to the hospital in Burlington.

Medical care for low-income, prenatal women is limited within the district. There are two obstetricians; one is only half-time; both restrict their Medicaid cases to a minimum number of patients. Prenatal participants may receive care locally through a general practitioner or a newly organized nurse midwife service, with visits once per trimester to an obstetrician in Burlington. These women typically deliver at the Medical Center Hospital of Vermont.

Community awareness of WIC is high in the St. Albans district. Referrals come from physicians, the midwife program, the Planned Parenthood Clinic, health department staff, and in many cases through other clients. In addition, observation of participant-staff interactions leads one to the conclusion that women view WIC services as a major resource to them and their babies. Counseling visits are long and detailed, yet enthusiastically carried out by participants and staff. Staff inquire about the regularity of and the results of medical followup, inform participants on safety, talk about parenting, and counsel on nutrition and breastfeeding.

The St. Albans district serves primarily white participants. Less than 1 percent are Native Americans. The program has a caseload of approximately 1,800 women, infants, and children and serves all six WIC priorities.

Staff estimate that half of the 340 female participants have completed 12 years of school. Most participants are originally from the Vermont community or other rural parts of New England. Three of the 10 women interviewed worked outside the home doing nursing, cleaning, or seasonal work, such as apple picking. To be eligible for WIC, family income must not exceed 185 percent of the poverty level. None of the 10 women reported transportation as a problem. Small, modest, single-family homes are built on adequate land often used for gardening.

Of the 10 participants interviewed, 8 were breastfeeding or planning to breastfeed. These women gave the impression that they view breastfeeding as the norm. All reported to have decided to breastfeed before entering WIC. They were familiar with breastfeeding because their mothers breastfed or because other relatives, friends, or church acquaintances had done so.

Staff reported that teenagers (not represented in interviews) are the least likely to breastfeed their infants. Feelings of being tied down, of modesty, and of the breast being thought of in a sexual rather than a functional way were noted as reasons.

B. Local Agency and Service Site Characteristics

The organizational setting for the St. Albans District Program is somewhat unusual for WIC, in that the Vermont Department of Health operates the WIC program statewide, and offers anthropometric measurements and hematocrits on site. The measurements are given to the clients who can share them with their primary health care provider. Measurements from health care providers are accepted for WIC certification and the length of certification is based on the date of the health care provider's measurements.

Eleven district offices have been set up to administer the program. Coordinated at the State level, each local district manager operates three programs: WIC, MCH, and "Partners in Health," an EPSDT program for Medicaid-eligible children. A family may be served by one or all three programs. Referrals flow smoothly within the network. In addition to WIC, well-child clinics are held monthly or bimonthly at local sites throughout the district. These clinics are run by the public health nurse and health outreach specialists with a local physician contracted for the well-child clinic. Otherwise, medical care is delivered by private providers.

The St. Albans district includes six sites covering about 240 square miles. The facilities for WIC clinics at each site are provided through space rented from local churches at the rate of about $25/day. The tenant status of WIC limits the use of walls or bulletin boards for breastfeeding promotion messages.

Churches have been the central meeting place for many years within rural New England. Therefore, people from the community view them as a comfortable place to gather. Space, frequently a problem within WIC clinics, is not a problem in these sites where each has several large rooms for use at nominal cost. However, confidentiality cannot always be assured in these large rooms. Also, each day staff must load and unload scales, centrifuge, measuring devices, medical records, and supplies from their automobiles.

The administrative office for the six sites is in St. Albans. Health department staff are based at this office, report each morning to pick up records and supplies, work at their scheduled clinic, and return to the administrative office at the end of the day. For continuity of patient care, staff are assigned to a specific geographic area; for example, the public health nurse responsible for home visits in St. Albans will also work at the well-child and WIC clinics there. Having staff from all three programs in the same administrative office enhances communication, facilitates referrals, and simplifies recordkeeping.

The State of Vermont uses the home delivery system of food distribution, and the health department contracts with local dairies within each community to deliver WIC foods. In addition, the State contracts (by competitive bid) with one formula company to supply formula by distributing it through the local dairies that deliver the WIC foods. Participants needing a special formula can arrange to pick it up monthly at the district office.

Contact between WIC and formula representatives for the most part is limited to the State office. General policy discourages written materials advertising or using formula company logos.

St. Albans, one of the two sites visited, serves the largest caseload of the six sites. Typically, 40-45 participants are certified per day, four or five times a month. At Grand Isle, an outlying site (approximately 50 miles from the administrative office), the staff certify 10-38 participants once per month. Participants who miss a certification appointment must travel to another clinic or postpone the appointment until the following month; therefore, response rates to certification appointments are high.

Staff. The local agency staff consists of 14 individuals: a district manager, a nutritionist, 2 health outreach specialists, 4 public health nurses, and 3 clerks, with a supervisor for each of the latter 3 groups. (Funding information is discussed below.) The district manager is responsible for field operations (employee time, program management, supervision of the nutritionist, and budget administration). He reports to a State director of field operations.

As the nutritionists spend most of their time in WIC-related activities, they are paid primarily through WIC funding. The nutritionist reports to the district manager and is responsible for nutrition education, participant certification and counseling, updating staff on nutrition-related information, and program coordination. The remaining positions relate to WIC in varying degrees. Three of the maternal and child health nurses provide counseling and certification, along with one health outreach specialist trained to certify and counsel the lower-priority participants. Within the WIC clinic, health outreach specialists do participant screening (height, weight and hematocrit). They also make home visits to the Medicaid-eligible children, which often puts the worker in contact with a pregnant or breastfeeding woman who may need referral to MCH or WIC services.

The WIC nutritionist present at the time of the study was the same person instrumental in launching a community "lactation project" in 1980 and who has been responsible for breastfeeding promotion. She is a master's-level nutritionist and a registered dietitian. Her interest in breastfeeding comes from personal experience (having breastfed three children) and breastfeeding training through three Health Education Associates workshops over the last 6 years. The district manager, a registered nurse with a bachelor of science in health education and an experienced breastfeeding mother, is also a strong breastfeeding advocate and has been instrumental in keeping breastfeeding a high priority.

Of the 11 staff interviewed, all mentioned the importance of the breastfeeding training given periodically by the nutritionist. Schedules are cleared for all staff to attend a meeting and/or inservice training on a variety of topics once a month. This procedure ensures dedicated staff time and results in uniform information sharing.

The State organization (3 programs operated through 11 districts) also facilitates training. Because it is a small State, Vermont is able to

conduct central training events for the various disciplines. This arrangement facilitates establishment of common programmatic goals and enables consistent information sharing.

Funding. Because of this high degree of service integration, funding information for WIC was not available at the district level. The 14 district staff members are paid predominantly by a combination of WIC, MCH and Medicaid funds. However, staff could be coded to any cost center such as epidemiology, AIDS, immunizations or health promotion if their activities pertain to any of these programs.

Besides staff salaries, there were virtually no other identified expenditures for breastfeeding promotion. However, the expense of printing the local newsletter, "Perinatal Press," which may carry breastfeeding information, was charged to the WIC program at the State office in Burlington.

C. Community Efforts Related to Breastfeeding

The St. Albans district breastfeeding initiative began in 1980 as the result of concern that only 22 percent of the St. Albans' WIC mothers were breastfeeding at the time of WIC certification -- as opposed to 64 percent in a neighboring district and 40.6 percent for the State. Possible reasons for St. Albans' lower rates were attributed to differences in community approaches (i.e., attitudes of obstetricians, pediatricians and hospital nursing staff), which appeared to vary more in the St. Albans community than elsewhere in the State. Care providers had little impact on the woman's decision in infant feeding, and there was little or no support for breastfeeding women who ran into problems. Thus, mothers were easily discouraged.

With encouragement from the WIC nutritionist, the "lactation project" was initiated, which consisted of two simultaneous efforts: one directed at prenatal WIC participants; and the other at community health care providers to obtain their support for breastfeeding. An important product of the first program was a questionnaire developed by the WIC nutritionist for expectant mothers to fill out prior to WIC certification. This infant feeding survey, further described in a later section, is still in use 7 years later.

The health care provider component of the lactation project was a seminar for health professionals who cared for pregnant women and their infants. The planning committee for the seminar included a pediatrician, a nurse practitioner, a hospital obstetrical nurse, and the WIC nutritionist, who chaired the program. Seminar objectives were to:

- inform and educate members of the health care community about breastfeeding;

- develop a standard protocol for education and care of the breastfeeding mother-infant pair;

- clarify roles of care givers providing services to the breastfeeding woman; and

- increase interaction and communication among health care professionals.

Eight health personnel were on the seminar panel, and 50 health care professionals attended. Attendees felt that the seminar heightened community awareness about breastfeeding. For example, one pediatrician changed his standing orders in the hospital nursery in support of breastfed infants and their mothers.

The WIC program became the clearinghouse for questions on breastfeeding, and meetings with local care providers have continued. The St. Albans WIC District Program produces a newletter, "Perinatal Press," which offers a variety of health-related information and maintains communication between the district office and the community. The newsletter keeps private providers informed of breastfeeding promotion activities offered within the community.

III. Intervention

A. Service Provision

The St. Albans District WIC Program emphasizes breastfeeding by providing information to pregnant women to encourage them to breastfeed and by supporting women who choose to do so. This is achieved through counseling, written materials, and home visits.

The use of staff funded jointly by WIC and MCH has resulted in similar priorities within both programs. For example, the first two priority groups served by MCH are prenatal and postpartum participants and their babies. Similarly, WIC priorities are to promote the advantages of breastfeeding, especially for participants who are undecided about the method of infant feeding, and to provide followup to breastfeeding women within 1 week of delivery (or as soon as possible). Thus, staff convey a similar breastfeeding message to participants, increase continuity of care and simplify postpartum support by eliminating the need to refer participants.

B. Project Processes

Participant referrals or telephone inquiries come into the central administrative office in St. Albans where all medical records are kept. A potential participant is given the next available appointment at the clinic in her area. Prenatal participants are sent several forms to complete and bring to the clinic: (1) a referral form to be filled out by the physician providing medical care; (2) a dietary intake form, including alcohol consumption and use of other drugs and the regularity of exercise; and (3) the infant feeding survey mentioned earlier. (See exhibit 16.)

Breastfeeding promotion begins at the initial certification when the infant feeding survey is reviewed with the participant, and continues during the prenatal period through the home visits. Following delivery, telephone followup and home visits are used to provide support to breastfeeding women. Key aspects of the district's breastfeeding promotion are discussed in more detail below.

Prenatal Contact. Prenatal certification at the St. Albans program is well organized. A participant meets first with the intake clerk; then with the health outreach specialist for taking height, weight, and hematocrit, and finally with a public health nurse or nutritionist. During this time (approximately 30-45 minutes) counseling covers many subjects, from general prenatal subjects (weight gain and diet) to the use of seat belts.

The infant feeding survey is reviewed by the counselor and used to begin breastfeeding support. All women are encouraged to breastfeed except those indicating a strong opposition to doing so. The one-page infant feeding survey has four sections: (1) personal data (date of birth, number of children, and expected date of confinement), (2) mother's and father's infant feeding preferences and previous breastfeeding experience, (3) participant breastfeeding support such as books, obstetrician, nurse or friend, and (4) attitudes toward breastfeeding. This latter section asks the participant whether she agrees or disagrees with several statements related to breastfeeding. In reviewing this with the participant, if she agrees with the statement that "Formula is as good as breastmilk for your baby," the counselor may discuss the advantages of breastfeeding and the disadvantage of early supplementation. If the mother agrees with the statement: "If you breastfeed, your baby may not be getting enough to eat," the counselor may address the ease of breastmilk digestion and the appropriateness of more frequent feeding.

In addition to reviewing the survey, staff may give out breastfeeding literature. For example, they might use a brochure entitled "Consider Breastfeeding" produced by the State of Vermont or a brochure from Health Education Associates such as "Fathers Ask: Questions about Breastfeeding."

In addition, a certification card, which becomes part of a tickler file, is completed to include participant name, date of birth, address, expected date of confinement, and physician's name. If a woman shows any interest in breastfeeding (based on the infant feeding survey), the public health nurse or WIC nutritionist follows up with a second contact.

Following certification, the public health nurse provides prenatal followup primarily via home visits. As mentioned earlier, the public health nurse is the WIC certifier at the clinic within her assigned geographic area. The contact at the WIC clinic begins the nurse/patient relationship, which continues through the home visits. All prenatal women are offered home visits at least once a month, and more if there are problems such as a teen pregnancy or poor weight gain.

Since the beginning of the breastfeeding initiative, the WIC nutritionist has followed all women who expressed an interest in breastfeeding by sending a letter about 2 months prior to their delivery, inviting the participant to a breastfeeding class. The monthly class observed consisted of the slide/tape program "Breastfeeding: The Natural Way" (Ross Laboratories) followed by a discussion of breastfeeding. However, at the time of the study the WIC nutritionist originally responsible for breastfeeding promotion had transferred to the State office, and a permanent nutritionist had not been hired. Thus, the 40-minute class is not being offered as frequently, and the public health nurses are handling breastfeeding counseling and support.

The clinic return rate for the second mandatory nutrition education contact is poor. While the home delivery system of WIC foods has advantages, it does not provide the incentive for returning to the clinic that the monthly check pickup provides. For this reason the nurses or nutritionist often incorporate breastfeeding education into the prenatal home visits, covering such breastfeeding topics as positioning, milk supply, and demand feedings. If a participant has a video machine, the nurse carries a Ross Laboratories videocassette on breastfeeding and leaves it for a few days. Mothers report that they are often able to share the tape with other family members, who may become part of their breastfeeding support system.

Postpartum Contact. Women in the St. Albans district program deliver at two hospitals, one in St. Albans and the other in Burlington. For deliveries in the St. Albans hospital, the public health nurse supervisor picks up the infant referral. If the Burlington hospital is used, referrals to the MCH supervisor are typically handled by telephone, followed by a written referral.

A public health nurse follows up the telephone referral with a call to the participant and a home visit within a week. Frequently the nurse has anticipated the delivery and visits the new mother in the hospital, if she has delivered at St. Albans.

Breastfeeding participants interviewed agreed that the hospital nurses were supportive and helpful, but mentioned that questions or problems frequently arose after going home. For example, many did not experience engorgement or similar problems until several days after the birth. The early postpartum contact by the public health nurse provided the necessary counseling and support to help them resolve these problems. In addition, providing counseling throughout the pregnancy establishes a rapport valuable for breastfeeding support in the postpartum period. Both patients and staff mentioned this early postpartum support, whether provided by a friend, nurse or family member as one of the most important factors in successful breastfeeding experience.

IV. Outcomes

The primary breastfeeding statistics compiled by the St. Albans district program concern the percentage of women certified as breastfeeding at the postpartum certification. In October 1986, 46 percent of the St. Albans district postpartum participants were certified as breastfeeding.* (For the State of Vermont, 45 percent of the participants were certified as breastfeeding in 1987.) This represents an increase of over 24 percent since 1979, when breastfeeding rates were reported to be 22 percent.

The data suggests that many women are continuing to breastfeed through the first 6 months postpartum. Data from October 1986 show that 40 percent of the women breastfeeding at the initial postpartum certification were still breastfeeding at the 6-month postpartum certification.*

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*The program could not provide the total number of participants for these statistics.

It is difficult to determine the extent to which the rise in breastfeeding certification rates is attributable to WIC practices. Certainly, the lactation project sensitized local health providers to breastfeeding issues and many changed their practices.

The integration of services appears to be a strong mechanism in the successful breastfeeding approach, and may sustain the gains in breastfeeding rates as the WIC nutritionist, the driving force in the 1980 initiative and a strong influence in the current program, leaves the district to become the WIC nutrition coordinator for the State of Vermont. Even from the State level, her support of breastfeeding is apparent as preparations are being made for revising breastfeeding literature and preparing for a statewide, centrally located breastfeeding workshop.

Also evident in observations of program operations are the common goals and objectives stated by staff, the smoothness with which participant information is exchanged, and the effective delivery of participant care and support. Breastfeeding appears to be an integral part of service delivery and accepted as standard practice.

V. Summary

The St. Albans district is a rural program serving a white population with less than 1 percent Native Americans. An integrated staff provide services through WIC, maternal and child health, and well-children programs. Funding is integrated for WIC, MCH, and "Partners in Health" at the State level and administered through 11 district offices. A community "lactation project" initiated by the WIC nutritionist in 1980 stimulated a community awareness which was still in evidence at the time of the study. Patients and staff report stronger breastfeeding support from the two delivering hospitals than has been evident in the past. Community care givers continue to exchange information and ideas.

Common goals and objectives enhanced by the integration support breastfeeding in the WIC clinic during certification and nutrition education and through home visits. Ongoing breastfeeding inservice training at specified times has provided all staff with current, consistent information with which to counsel participants about breastfeeding.

EXHIBIT 16

INFANT FEEDING SURVEY

Courtesy of St. Albans District Office, VT

Name_____ Your Birth Date_____
How many children do you have?_____ Your Due Date_____
How old are they?_____

	Breast	Formula	Don't Know
1. How do you want to feed your new baby?	___	___	___
2. Which does the baby's father prefer?	___	___	___
3. Method of feeding previous children?	___	___	___
4. How were you fed as an infant?	___	___	___
5. How was the baby's father fed as an infant?	___	___	___

Which of the following will be most helpful when you decide whether to breast-feed or formula feed your new baby? (Check as many as apply.)

1.___Obstetrician
2.___Pediatrician
3.___Baby's Father
4.___Relatives
5.___Public Health Nurse
6.___WIC Information
7.___Friends
8.___Magazine Articles
9.___Hospital Nurses
10.___Books
11.___Own Ideas
12.___Other
Explain_____

Do you agree or disagree with the following statements about infant feeding? Circle A - if you agree, D - if you disagree, and ? - if you don't know.

1. It is easier to bottlefeed than to breastfeed.	A	D	?
2. Formula is as good as breast milk for your baby.	A	D	?
3. If you breastfeed, your baby may not be getting enough to eat.	A	D	?
4. Fathers are closer to babies if they can bottlefeed them.	A	D	?
5. Breastfeeding can help you to lose weight after the baby is born.	A	D	?
6. Breastfeeding provides a closer emotional bond between mother and child than bottlefeeding does.	A	D	?
7. Your breasts will return to their prepregnant size soon after you stop breastfeeding, regardless of how long you breastfeed.	A	D	?
8. Any woman can breastfeed.	A	D	?
9. The best way to calm a baby is to let him/her nurse.	A	D	?
10. You are "tied-down" if you decide to breastfeed.	A	D	?

How many years of school have you completed?_____
Do you plan to continue your schooling?_____
How many years of school has your husband (boyfriend) completed?_____
Does your husband (boyfriend) plan to continue his schooling?_____

The Fulton County Health Department WIC Program
Atlanta, Georgia
The Peer Breastfeeding Counselor Model

I. Overview

- **Local Agency Name:** Fulton County Health Department WIC Program
- **Type of Local Agency:** County health department
- **Service Site Name:** South Fulton Health Center WIC Program
- **Location:** Metropolitan Atlanta
- **Service Site Staff:** WIC coordinator (covers 20 WIC sites)
  Lead nutritionist (covers 20 WIC sites)
  Nutritionist (covers 2 WIC sites)
  Peer counselor (covers 2 WIC sites)
  Clerk
- **Funding Sources:** Peer counselor project supported by $50,000 grant from the Southeast Regional Office of the Food and Nutrition Service, U.S. Department of Agriculture, for each of 2 years (the project is implemented in 12 service sites);
  WIC funds;
  Height, weight, hematocrit provided as in-kind contributions by county health department
- **Caseload:** 800 (Priorities I-III)
- **Food Distribution System:** Retail purchase
- **Ethnicity:** Black - 88 percent
  White - 12 percent
- **WIC Service Location:** WIC program located in a full service clinic
- **Outside Services Integrated with WIC:** Prenatal and pediatric services (county health department)
- **Key Breastfeeding Promotion Activities:**
  - Use of peer counselors in:

    Prenatal breastfeeding class;
    Individual counseling;
    Prenatal phone call to mothers at home;
    Bedside counseling; and
    Postpartum telephone counseling.

  - Involvement in State breastfeeding task force and local breastfeeding committee

II. Context

A. Community and Participant Characteristics

The Fulton County Health Department WIC Program serves most of Atlanta and its adjoining communities, a service area containing over 1 million people. The program serves WIC priorities I-III, and follows the standard Federal guidelines for financial eligibility that family income must not exceed 185 percent of the poverty level. The local agency uses the retail purchase system of food distribution. The service site which was the focus of the case study carries a caseload which includes approximately 150 women of whom about 88 percent are Black and many are unemployed. Among those who work, positions such as clerks, cashiers, and warehouse workers are common. Most participants have telephones. Over half of the women are single mothers, and about 75 percent receive their prenatal care at the county-operated clinics; the remainder see private physicians.

B. Local Agency and Service Site Characteristics

The Fulton County Department of Health administers 20 WIC service sites, all located in health care centers. WIC services are integrated with well-child care services at all the health care centers and with maternal health care services at the 12 centers where they are offered.

Enrollment into prenatal WIC services for most pregnant women (75 percent) occurs at Grady Memorial Hospital in downtown Atlanta. Women may be enrolled following a positive pregnancy test at the first hospital clinic appointment. Those meeting certain high-risk criteria are assigned to one of the hospital's various high-risk clinics. All others are referred to the county health center closest to their home. The remaining 25 percent of the prenatal women enrolled in WIC use private providers. Similarly, newborn enrollment occurs at the hospital, during the postpartum hospital stay, with all newborns subsequently referred to the county facilities for health care.

Staff. The local agency has a nutritionist to coordinate the overall WIC program, and a lead nutritionist who plans and supervises nutritional services. Individual sites are served by additional nutritionists. Six resource mothers have been recruited and trained to work as peer counselors across the 12 sites that provide maternal health care services, each covering 2 sites.

The Resource Mothers Project. The concept of the resource mothers is to have experienced breastfeeders serve as role models and provide support, including bedside counseling to WIC participants. Resource mothers were recruited primarily by recommendations from the WIC clerks who, having monthly contact with participants, are often most familiar with them, their personalities, and their breastfeeding experiences, all of which are important considerations in choosing a peer counselor.

The resource mother project was initiated by the lead nutritionist who recruited a public health nurse from the county to collaborate in its development and oversee its coordination. The project continues to be managed by the lead nutritionist; but now, in the absence of the coordinator,

the lead nutritionist is also responsible for direct supervision and training. Although she has no training specifically related to breastfeeding promotion, the lead nutritionist worked earlier as a trainer of professionals in the Head Start program.

Funding. Funding for the resource mothers project was obtained in fiscal years 1986 and 1987 through a proposal submitted to the State WIC office, which had discretionary funds from the Southeast Regional Office of the Food and Nutrition Service, U.S. Department of Agriculture. The local agency received $50,000 for each of 2 years to cover all costs related to the project, including:

- wages for each of six resource mothers at $4.16 per hour, for 19 hours per week;
- the project coordinator's half-time salary;
- educational materials, consisting of films, slide shows, pamphlets, duplication of locally produced items, model dolls, breast pumps and other visual aids; and
- supplies such as postcards, postage, and paper.

The South Fulton Health Center. The South Fulton Health Center, one of the 20 service sites, was the focus of the case study in order to observe the resource mother approach, as well as other aspects of breastfeeding promotion undertaken by the local agency. The center is 10 minutes by car from downtown Atlanta. The site is well served by public transportation and is located in a neighborhood containing low-income housing projects interspersed among single-family detached houses.

The South Fulton Health Center provides various health services: WIC, maternal clinic, child health clinic, family planning, immunization, teen services, and dental health. WIC services are integrated with maternal and child health, with appointments and charts being shared.

The facility itself is a simple one, consisting of a large waiting area, cheerfully though not lavishly decorated. One end of the waiting area is used for classes, which is preferred to using the conference room, since it allows those in the waiting area to hear the information and see the films.

At one end of the waiting area are offices and examination rooms for maternal and child services. At the other, the dental clinic and a conference room are located. WIC offices and medical exam rooms stress utility. A few locally produced breastfeeding posters are displayed in the waiting area and a few breastfeeding brochures are on a table. Notably absent from this facility are displays of infant formula.

The WIC staff at the site includes a nutritionist and a resource mother (both of whom also cover another service site) and a full-time clerk. A public health nurse on the center clinic staff provides maternity care. Both the nutritionist and public health nurse cover breastfeeding topics in their contacts with mothers, but rely upon the resource mother for indepth education and counseling regarding breastfeeding. Probreastfeeding comments from other staff members, including the clerk, reinforce the breastfeeding information provided by the resource mothers.

WIC and clinic staff demonstrate positive attitudes toward breastfeeding and thorough knowledge of the subject. Professional staff have gained their expertise in breastfeeding by keeping up with the literature, on-the-job learning, personal experiences, and participation on the bicounty/hospital breastfeeding committee, which brings together health providers from Fulton and Dekalb counties and Grady Memorial Hospital.

The WIC caseload at South Fulton is about 800 participants (including infants and children). According to the service site recordkeeping system for July 1987, 44 women were enrolled as prenatals and 3 as breastfeeders. This differs from the number of breastfeeders indicated by a separate recordkeeping system (a 3-month summary of the resource mothers project from April to June 1987) which indicated that 10 women had initiated breastfeeding, and 10 women who had delivered before April 1987 were still breastfeeding.

One reason for this discrepancy between the tallies of breastfeeding women is that some women may have stopped breastfeeding by the time they are certified at 6-weeks postpartum. Another reason was offered by both hospital and local agency WIC staff, which concerns State policy regarding the issuance of powdered formula only to breastfed infants. Mothers of breastfed infants receive 1 to 3 pounds of powdered formula (issued during an infant certification which occurs during the hospital stay), depending on how much they breastfeed. Breastfeeding mothers may not receive the formula in concentrated form. Because of a preference for the concentrated over the powdered form, WIC staff report that some breastfeeding mothers choose not to enroll themselves as breastfeeders at the postpartum certification 6 weeks later, and take the full infant package with concentrated formula instead.

C. Community Efforts Related to Breastfeeding

Fulton County consists of most of the city of Atlanta and numerous smaller communities which make up one of the largest urban areas in the South. Important aspects of the community context which have assisted breastfeeding promotion are the State of Georgia Task Force for Breastfeeding and the Fulton/Grady/Dekalb Breastfeeding Committee.

State of Georgia Task Force for Breastfeeding. Chaired by Grady Hospital's chief nutritionist, this committee includes representatives from the State's hospitals and health departments and La Leche League. There are two levels of operation -- the task force, and its advisory board. Physicians sit on the multidisciplinary advisory board rather than the task force. Physician

participation, even in this limited fashion, is valued as it adds to the influence of the task force. The lead nutritionist from Fulton County is a member of this task force, linking South Fulton and other WIC sites into its activities.

The current project of the task force is to promote regional networking through the publishing of a newsletter entitled "Breastfeeding Resources -- Linking Together the Southeastern States." This is supported by a minigrant using Title V funds for Special Project of Regional and National Significance (SPRANS) from the Bureau of Maternal and Child Health, U.S. Department of Health and Human Services.

The Fulton/Grady/Dekalb Breastfeeding Committee. The Fulton/Grady/Dekalb Breastfeeding Committee brings together health providers from Fulton and Dekalb counties and Grady Hospital. Hospital membership includes the breastfeeding counselor, head and staff nurses from the maternity units, midwives, two obstetricians, a pediatrician, chief nutritionist, nutrition staff, and health educators. From the counties come public health nurses, nutritionists, a physician, a resource mother, and the resource mother project coordinator. The State WIC nutrition consultant participates, and breastfeeding mothers are invited as well.

The committee has revised a number of hospital protocols which affect breastfeeding, including policies relating to febrile mothers, Cesarean sections, water bottles, and isolation. It has also implemented policies prohibiting staff from wearing promotional items from infant formula companies. In addition, formula company representatives are limited to contact with designated individuals only.

Linkage with Grady Memorial Hospital. An important aspect of South Fulton's service delivery is its linkage with Grady Memorial Hospital. In addition to direct patient services oriented towards breastfeeding, the hospital also supports breastfeeding by the participation of several of its staff in the breastfeeding committee mentioned earlier. Since 1984 the hospital's Maternal and Infant Care Project (M&I) has had its own hospital-based WIC program. Approximately 8,000 infants are delivered at Grady each year, and the hospital serves high-risk, urban pregnant women.

Prenatal enrollment for all WIC sites occurs at the hospital's WIC program with the exception of private physician patients. The facility used for the hospital WIC program is cheerfully decorated with several breastfeeding posters, one of which was a composite of photographs of breastfeeding mothers and their infants. The M&I project has its own breastfeeding promotion agenda, and provides individual counseling focusing on breastfeeding techniques to those women who continue at one of the hospital's clinics.

Most South Fulton WIC participants deliver at Grady, where a breastfeeding counselor (from the M&I project) provides individual bedside assistance and counseling to high-risk mothers and mothers with special breastfeeding problems during the 3-day hospital stay. The breastfeeding counselor, a registered nurse and former assistant head nurse at the hospital, is a breastfeeding advocate who believes that the WHO/UNICEF International

Marketing Code of Breastmilk Substitutes should be followed.* The resource mothers assist and are supervised by the breastfeeding counselor, providing bedside counseling in routine situations.

Gains have been made in creating a hospital environment supportive of breastfeeding, yet more remains to be done. Hospital support for breastfeeding was evident during a tour of the maternity unit, where it was noted that formula bottles were absent from the bassinets of breastfed babies, suggesting that a nursing mother's request to breastfeed is respected. Further, in addition to the services of a breastfeeding counselor, breastfeeding classes are offered to mothers by staff nurses. However, because infants may not remain in the mothers' rooms overnight, nursing mothers must ask to be awakened and go to the nursery to breastfeed. Moreover, Grady is a teaching hospital, staffed by rotating residents, many of whom are not familiar with lactation problems. Additionally, while gift packs from the health center no longer contain infant formula, the practice of dispensing formula samples still persists at the hospital, and breastfeeding mothers are discharged with samples of powdered formula.

III. Intervention

A. Service Provision

With regard to South Fulton's breastfeeding promotion, as noted earlier, the central feature is the resource mothers project. Resource mothers are former WIC participants who have breastfed, and who are hired and trained by the local agency. Resource mothers motivate prenatal participants and support new mothers by sharing their knowledge, experience, and insights. Women participate in the project by indicating at any point during the prenatal period to the resource mother an interest in breastfeeding or learning more about breastfeeding. The resource mothers provide continuous support to WIC participants in the prenatal period, during the hospital stay, and throughout the postdischarge postpartum period. Resource mothers conduct prenatal classes, covering the advantages of breastfeeding (health, closeness, disease prevention); provide hospital bedside counseling within 24 hours of delivery; and make telephone followup. Resource mothers may work with participants for up to 6 months postpartum.

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*The WHO/UNICEF international code "explicitly recognizes that the marketing of artificial infant feeding products can have a detrimental impact on infant health; and establishes a minimum universal standard to bring that marketing under control. It calls for the elimination of promotion to the public; distribution of free samples; promotion in health care facilities; sales incentives to increase demand for the products." The United States has not officially adopted this code. (IBFAM-International Baby Food Action Network, c/o INFACT, Minneapolis, MN.)

B. Project Processes

Resource mothers work between 19 and 24 hours a week. Each is assigned to two health centers and carries a caseload of women through the pregnancy and postpartum periods by providing classes and counseling in the clinic and telephone support at home. During the hospital stay, resource mothers counsel and assist all mothers on the maternity unit on their assigned day at the hospital. According to the breastfeeding project summary for April-June 1987, the average caseload of a resource mother is 27 women for two service sites. They visit assigned centers on days when maternal services are provided to conduct a monthly class on breastfeeding, as well as provide one-on-one counseling in the waiting area. One day a week, each resource mother conducts bedside counseling at Grady Hospital.

Resource mothers meet together every 2 weeks to share ideas, experiences, solutions, and information. Since the group is represented on the Fulton/Grady/Dekalb Breastfeeding Committee, the resource mothers' meetings are used to update the group on wider issues and developments in breastfeeding promotion.

Training. The initial training of the resource mothers occurred over five half-day sessions using materials developed by the lead nutritionist, the former project coordinator, and another WIC nutritionist. The materials included teaching outlines and related text on the benefits of breastfeeding and common concerns, nursing techniques, maintenance of breastfeeding, and special situations. Resource mothers were tested on the material following each session, and use these same lesson plans in their classes, affording the coordinator some control over content. The training outline for one lesson appears in exhibit 17. Resource mothers were paid for their time in training and were permitted to bring their children to the training sessions, as well as to work.

There has been little turnover in staff over the 2 years that the project has been in operation. While no data are available to explain the project's stability, observing resource mothers' work and talking to them indicate that they have varied responsibilities and are allowed creative input. Unlike volunteer peer counselors, they are paid and are also given an alternative to expensive child care.

Prenatal Contact. Prenatal contact between the resource mother and the participant begins with an early prenatal clinic appointment. Depending upon the week, the contact may be one-on-one or it may be as part of a group, followed by a brief private session. For group sessions, a resource mother presents four different classes, one each month, with an individual class lasting from 45 minutes to 1 hour and including a film. Teaching aids include a flip chart, a doll, a breast pump, a nursing bra, and easy-to-nurse-in clothes.

Resource mothers intersperse personal experiences and insights with the technical information. Classes cover a broad range of information, and participants are taught both about the benefits and techniques of breastfeeding, and are also prepared for their hospital stay. For example, the resource mother discusses the hospital's routines and protocols and what

special requests that participants as patients can make to ensure access to their infants and to avoid supplementary formula feedings. During the class, the resource mother documents participants' attitudes toward breastfeeding and infant feeding plans, later using this information for followup. At the end of the class she meets with each participant, offering her card, her continued support, and her home phone number. While few mothers call the resource mothers, the program feels that this gesture contributes to a friendly, supportive peer relationship.

Before each class, the resource mother sends reminder postcards, noting the time and topic. One week before the expected date of confinement, the resource mother calls those who indicated an interest in breastfeeding, to provide them with last-minute encouragement and information.

In-hospital Support. The resource mother's support continues during the hospital stay, and each resource mother spends a day a week counseling new mothers at bedside in Grady Hospital, under the supervision of the hospital's breastfeeding counselor. (Fulton County's lead nutritionist began this practice by contacting the hospital's breastfeeding counselor and the hospital administration about having the resource mothers work on the maternity units.) The resource mothers follow up on newly delivered breastfeeding mothers regardless of the mothers' clinic assignment. The resource mother who provides the in-hospital support either contacts the resource mother who had initiated contact with the participant, or makes a new referral as appropriate for postdischarge followup support.

Postpartum Contact. Following hospital discharge, resource mothers call participants about 1 week postpartum to provide support and encouragement and to discuss any breastfeeding problems. If no problems exist, the resource mother follows up with monthly calls for up to 6 months, if the mother is still breastfeeding. However, if the mother is experiencing breastfeeding problems, the resource mother calls more frequently and may make a home visit. Resource mothers vary their telephone schedules. One resource mother finds that late morning and early evening are convenient times to find mothers at home and available to talk about how breastfeeding is progressing and to answer questions.

Indirect Breastfeeding Promotion. The resource mothers also conduct inservice sessions for hospital, clinic, and county maternal and child health personnel. One such session was for about 40 people, consisting of public health nurses and nutritionists in the county. Using a varied format which included lecture, film, demonstration, and skits, the resource mothers creatively communicated some of their clients' commonly felt concerns about breastfeeding, and suggested approaches to counseling mothers that addressed these concerns. The session was planned during two regularly scheduled meetings. The resource mothers received much positive feedback from the group and concluded that the presentation helped improve their credibility as valuable members of the health care team. They have been invited to present their program to other professional groups.

Educational Materials. Teaching aids used by the resource mothers include dolls; breastfeeding supplies such as pads, pumps, nursing bras, and creams; flip charts; slides; and films. The slides and the films are shared

among the clinics and include "Outside my Mom," (on loan from the March of Dimes). They own two films -- "Breastfeeding: A Special Closeness," by Motion, Washington, DC; and "Breastfeeding: The Natural Thing to Do," by Kuana, Ltd., Atlanta, GA. A third film is on loan from Ross Laboratories, entitled "To Breastfeed Your Baby." It was reported to be unpopular with mothers because of scenes which compared a mother breastfeeding her infant to animals nursing their young. In addition, a number of written materials are used, including one-page handouts produced by Grady Hospital; "Fathers ask: Questions about Breastfeeding," by Health Education Associates, Glenside, PA; and "The Natural Thing to Do," by the Georgia Department of Human Resources. Selected materials provided by manufacturers of infant formula are used, in particular one about expressing and storing breast milk.

Recordkeeping. Resource mothers carefully document participant contacts on a separate record for each containing the date, location, length of contact, topics discussed, and advice or referrals given. The resource mother checks the duration of breastfeeding monthly, and notes the status such as reason for weaning. Data from the individual mothers are compiled on the end-of-the-month caseload summary, which contains date of delivery; whether breastfeeding was initiated; if initiated, whether successful; infant's age at cessation of breastfeeding; and reason for stopping. Another monthly report summarizes breastfeeding interest before and after class attendance; number of classes, telephone, mail, and hospital contacts; number of deliveries; initiation of breastfeeding; and problems which precipitated weaning within 1 to 2 weeks after delivery. The project coordinator uses the information to compile a summary report for the local agency. Resource mothers keep their own records of class attendance and contact mothers prior to subsequent classes.

IV. Outcomes

Despite the rich data collected through the resource mothers' recordkeeping, statistical evaluation of the project is not possible using the available aggregated data. Moreover, limitations in the computerized data system render the calculation of a true breastfeeding rate impossible. Using the flawed method of comparing the numbers of breastfeeding and prenatal participants, the rate of breastfeeding for September 1987 was 31 percent, based on 14 women certified as breastfeeders, and 45 as prenatal participants.

Participant satisfaction with the project appears to be high. For example, results from an agencywide survey of 105 project participants during the first year show that 98 felt that the project should continue. The same survey found that the class discussions and films were the most helpful aspect of the project, followed by telephone calls and hospital visits.

The resource mothers project has also produced a trained, enthusiastic cadre of peer counselors, who in addition to their responsibilities for direct participant contact, are seen as effective professional trainers, and are able to integrate the participants' perspective into their presentations.

The strengthening of existing links between the outpatient and hospital components of client care is also a positive outcome of this endeavor.

V. Summary

The South Fulton WIC Program is one of 20 WIC service sites administered by the Fulton County Health Department in Atlanta, GA. Service site staff include a nutritionist, clerk, and a peer counselor, who are supervised by the local agency's coordinator and lead nutritionist. The participant population is primarily Black with a small white minority.

Breastfeeding is promoted through the use of paid peer counselors, and by participation in county/hospital and State-level professional networks. Within the clinic, the peer counselors are an integral part of the health care team. Former WIC participants, the peer counselors, or resource mothers as they are called, initiate contact with pregnant participants at WIC and clinic appointments, provide bedside counseling, and do telephone followup throughout the postpartum period. Their prenatal participant contacts are limited to women not classified as high medical risk, since high-risk patients are seen at the hospital clinics and are not referred out to the county clinics. Within the hospital, resource mothers do bedside counseling and are supervised by the hospital's M&I Project breastfeeding counselor.

The ongoing operation of the project has been dependent upon an annual grant from the State WIC office from the Southeast Regional Office of the Food and Nutrition Service, U.S. Department of Agriculture, discretionary funds to cover related salaries and materials.

Participation by the local agency in a bicounty/hospital breastfeeding committee, and a State-level task force, gives WIC providers input into areas affecting the greater context for breastfeeding, such as hospital practices and information sharing.

EXHIBIT 17

ONE LESSON OF A FOUR-LESSON BREASTFEEDING TRAINING PROGRAM FOR STAFF

Courtesy of Fulton County Health Department WIC Program, GA

OUTLINE OF LESSON #3 ENTITLED "MAINTAINING BREASTFEEDING"

OBJECTIVES

Upon completion of this lesson, each participant will be able to:

1. Demonstrate breast massage, manual expression, and correct use of breast pump.
2. Identify two situations when expression and storage of breast milk may be useful or desired.
3. Discuss appropriate supplementation to breastfeeding.

TEACHING METHODS AND AIDS

1. Lecture
2. Discussion/sharing
3. Film: "The Nature of Milk" by Ross Laboratories
4. Pamphlets/Leaflets: "Expressing and Storing Milk" by Ross Labs, "Supplemental Feeding" (Ross), "For the Mother Who Has Decided to Discontinue Breastfeeding" (Ross), "Reminders for the Nursing Mother at Home" by Grady Hospital M & I Project.
5. Breast pump
6. Nuk nipples
7. Breast pads

CONTENT OUTLINE

I. Decision to continue/discontinue breastfeeding

   A. Factors

      1. Maternal desires/feelings
      2. Outside responsibilities
      3. Family attitudes

   B. Breast milk alone is adequate nutrition for infant up to age 6 months

MAINTAINING BREASTFEEDING (Cont.)

II. Breast Baby

A. Growth spurts

B. Attitudes/behavior
   1. Biting
   2. Breast preference
   3. Nursing strikes
      a. Can be caused by teething, colds, traveling, change in routine
      b. Usually after baby is 6 months of age

III. Common Problems and Solutions

A. Clogged milk ducts

B. Decreasing milk supply

C. Engorgement

IV. Expression and Storage of Breast Milk

A. Manual expression

B. Breast pump - electric and manual

C. Storage
   1. Refrigerator
   2. Freezer

V. Weaning

A. Appropriate infant diet

B. Bottle/cup

EVALUATION

Participants will be evaluated on:

1. Performance on written posttest.

2. Accuracy of information shared during maternal classes and in project reports.

The instructor will be evaluated on:

His/her performance as rated by the participants on a standard appraisal instrument developed by the project.

MAJOR CONTENT OF LESSON #3

MAINTAINING BREASTFEEDING

How long to breastfeed depends on:

1. Mom's desire to continue
2. Work schedule
3. Family views

The single most important factor in success of breastfeeding is the let-down reflex. Any mother can produce the milk, but the let-down reflex excretes it, thus continuing production. A calm, relaxed mother with some help at home leads to a calm baby who sleeps and nurses well.

Breastfeeding even a few weeks offers advantages, especially immunological. Breastmilk alone is adequate diet for baby up to 6 months of age. Mother should continue good diet with 2-3 quarts of fluid daily and 500 extra calories. Continue prenatal vitamins to replenish her stores. Infants are also usually on iron and vitamins to build up stores for later use.

Breast Baby

- Growth spurts - at about 10 days and 2 or 3 months of age. This is a normal time when baby wants to feed more frequently, thus causing breasts to make more. This doesn't mean mom's milk is drying up or that baby isn't getting enough.

- Stools - normally softer than bottle babies. May be yellow, seedy, and several times a day.

- Biting - babies don't bite when hungry. May bite if playing with breast. Simply remove breast and tell baby NO! with a displeasing look, then resume feeding.

- Breast preference - some babies may prefer one breast to the other. Must continue to feed on both to keep milk supply up. Can hold baby in same position as for favorite breast, or can manually express some milk to make nipple softer and easier to grasp.

A mother may occasionally get clogged milk ducts if breasts are not completely emptied. May notice hard lump or pain in a specific area, indicating a clogged duct. This can be prevented by emptying breasts completely, and avoiding tight bras that may prevent emptying. Treat clogged ducts by:

1. Feeding every 1-1/2 to 3 hours
2. Warm wet towels or warm bath or shower before feeding
3. Massage breast
4. Start feeding on less tender breast, then switch after let-down
5. Change baby's position
6. Express of pump after feeding to ensure breasts are emptied.

Expression and Storage of Breast Milk

Wash hands. Massage breasts, or warm bath or shower -- this relieves engorgement, softens nipple, and starts flow of milk. Support breast with other hand.

Breast milk may be collected by hand expression or breast pump. The breast pump should be one that comes apart easily for washing and sterilizing. Change from one breast to the other several times during pumping. The milk expressed can be fed to baby immediately or saved for later use. For storage - use sterile bottles and nipples. Wash with hot soapy water and place in pan of water and boil for 5 minutes. Use plastic bottles or can use zip-lock plastic bags. Write date and time on bottle/bag. Can save in refrigerator for 24 hours or in freezer part of refrigerator for 2 weeks. Defrost in refrigerator or in container of hot water. Do not leave at room temperature; do not put in microwave oven; do not boil. Throw away any unused milk; it cannot be refrozen or saved.

Returning to Work or School

Easier if breastfeeding is well established before mother resumes outside responsibilities. Practice expressing, pumping, storing before actually leaving baby. Start trying baby on bottle no later than 6 weeks of age and no sooner than 2 weeks. Giving baby a different nipple before 2 weeks may confuse baby and make sucking at breast harder.

When leaving a bottle, baby may receive stored breast milk or iron-fortified formula. No whole milk and no solids or juices before 6 months of age. No whole milk until 1 year.

Weaning

Is process of giving nourishment by any method other than breast. May be cup or bottle. Wean baby if:

1. Mom desires it
2. Receives medical advice to stop breastfeeding

Replace one feeding at a time with bottle or cup until baby is use to it. When only one breastfeeding remains, may decrease the length of time baby nurses. Then, start skipping days until baby no longer expects breasts.

Near North Health Service Corporation WIC Program
Chicago, Illinois
The Community Network Model

I. Overview

- **Local Agency Name:** Near North Health Service Corporation (NNHSC) WIC Program
- **Type of Local Agency:** Neighborhood health agency
- **Service Site Name:** Near North Health Service WIC
- **Location:** Metropolitan Chicago, near large public housing project of Cabrini-Green
- **Service Site Staff:** Nutrition director (covers three WIC sites and has non-WIC responsibilities)
  Coordinator (covers three WIC sites)
  Nutritionist
  Dietetic technician
  Clerk
- **Funding Sources:** $60,000 supplemental State WIC funds (shared among local agency's three service sites) available through State-sponsored Infant Mortality Reduction Initiative;
  WIC funds;
  Space for program operations, utilities, and partial administrative costs, as in-kind contribution
- **Caseload:** 626 (Priorities I-IV)
- **Food Distribution System:** Retail purchase
- **Ethnicity:** Black - 58 percent
  Hispanic - 32 percent
  White - 10 percent
- **WIC Service Location:** WIC program located in full service clinic
- **Outside Services Integrated with WIC:** Prenatal and pediatric services (Federally funded through neighborhood health agency)
- **Key Breastfeeding Promotion Activities:**
  - Reduced caseload for nutritionist focusing on pregnant and breastfeeding participants;
  - Frequent followup by nutritionist during prenatal period;
  - Prenatal breastfeeding class;

- Breastfeeding support group jointly offered with other health providers;
- Contract agreement between WIC/clinic and affiliated hospital;
- Emphasis on ongoing professional education for staff;
- Breastfeeding posters in all clinical areas;
- Development of improved breastfeeding assessment, tracking and evaluation forms and procedures; and
- Formation of a breastfeeding task force.

II. Context

A. Community and Participant Characteristics

The Near North Health Service WIC Program served a caseload of 626 in September 1987. The caseload included 186 women, 315 infants, and 127 children. The Near North Health Service Corporation (NNHSC) has been actively engaged in the implementation of the Infant Mortality Reduction Initiative (IMRI) over the last 12 months. IMRI is a State-sponsored initiative to reduce the infant mortality rate to 9 per 1,000 by the year 1990. Because of this goal, WIC agencies receiving IMRI funds were asked to serve primarily women and infants in the higher priority categories of I-IV.

The majority of the women in the caseload, 58 percent, are Black. Many live in the nearby Cabrini-Green high-rise public housing projects, located about a mile west of downtown Chicago. About a third of the adults served (32 percent) are Hispanic. Many of the Hispanics live west of the Near North Health Service target area, but desire and are able to receive services at the clinic anyway. The remaining 10 percent of the adults served are non-Hispanic whites, many of whom are members of a Christian community that live in the clinic's target area.

Health status statistics for prenatal participants indicate a high-risk population. During 1986-87, 17 percent of the prenatal participants were age 17 and under, 20 percent became pregnant within 1 year of another pregnancy, and 42 percent were anemic.

Significant differences exist among the three ethnic/racial groups served by the clinic with regard to their predisposition toward breastfeeding. The non-Hispanic whites in the Christian community are favorably inclined toward breastfeeding, and virtually all new mothers in the community breastfeed for at least 6 months. According to WIC program staff, Hispanic mothers tend to be favorably predisposed to breastfeeding, but may be constrained by boyfriends or husbands who oppose it.

In contrast, Black mothers are generally less willing to breastfeed their infants. One reason cited by program staff was that many young Black mothers are still in high school, and frequently they return to school as early as 2 months after delivery. If these young mothers breastfeed at all, they stop before going back to school. A commonly cited explanation given by participants is that they could not breastfeed in front of friends. Further, many of the young mothers reportedly want to give their children over to their grandmothers to raise in order to return to school and to their boyfriends. Another commonly heard defense of bottlefeeding is that it is more middle class and sophisticated.

B. Local Agency and Service Site Characteristics

The NNHSC began in 1966 as a children's health program, one of the first Federally funded children and youth health projects. Twenty years later it is an established community resource with an operating budget of just under $3 million. Services include pediatrics, obstetrics, and an adult program

program begun in 1969. Several specially funded programs are oriented to the health and social needs of young mothers and their children as well as isolated elderly. Until 1985 NNHSC had a community nutrition program, but patients were referred elsewhere for WIC services. In 1985 NNHSC began operating a WIC program under contract to another local agency and, in 1987, NNHSC became its own local agency. The NNHSC is the WIC local agency for three sites. Two of the sites are operated by other health agencies under contract to NNHSC. The third site, the Near North Health Service, is the main subject of this description.

The case study visit occurred just prior to the center's move to a new facility in October 1987. In the old facility, all WIC activities except classes took place in a large room with five desks. During active periods, voucher pickup, scheduling, counseling, and paperwork all went on simultaneously in the same room.

Staff. Supervision of the total NNHSC WIC program is the responsibility of the director of nutrition, who notes that 20 percent of her funding and 75 percent of her time is related to WIC. The director of nutrition has been the leading force in conceptualizing and implementing breastfeeding promotion activities. She holds a bachelor of science degree in nutrition and a masters in public health, and is active in a number of citywide nutrition committees. Working with the director of nutrition is a 100 percent WIC-funded coordinator. She is a registered dietitian and is charged with the day-to-day supervision and coordination of NNHSC's three WIC sites. All other WIC staff are assigned to the individual center sites.

The Near North Health Service WIC Program is regularly staffed by a full-time nutritionist, a full-time dietetic technician, and a half-time nutrition clerk. Their salaries are fully WIC funded. Additionally, the WIC program frequently uses volunteers. Many are medical, nutritional, or public health students who work with WIC as part of their internships.

The WIC nutritionist holds a bachelor of science degree in nutrition and has attended several workshops on breastfeeding. Her schedule is set with the assumption that she will be participating in a number of center and community committees related to WIC and especially breastfeeding promotion. Besides her center work, the nutritionist is active in the Chicago Breastfeeding Task Force, and the Healthy Mothers, Healthy Babies Coalition.

The dietetic technician has an associate's degree in nutrition and has also attended several breastfeeding workshops. She is fluent in Spanish and usually either provides services directly to Hispanic participants or translates for the nutritionist.

Funding. In 1987 the three NNHSC WIC programs served a caseload of 2,500 participants with a total budget of $150,000. This included $90,000 in WIC Federal funds and $60,000 in WIC funds through the IMRI program. These funds were used almost 100 percent for personnel costs. IMRI funds amounting to $3,500 were specifically targeted for breastfeeding promotion activities and were used to purchase posters and other educational materials and to pay costs associated with workshops. NNHSC also makes an in-kind

contribution to the WIC program insofar as WIC is not charged for rent, utilities, or the full administrative costs. The total WIC administrative funds for the three NNHSC-administered WIC programs comprise just under 6 percent of NNHSC's total operating budget.

C. Community Efforts Related to Breastfeeding

Almost all the Near North Health Service WIC participants also receive prenatal services at the center, and almost all deliver at a nearby teaching hospital. The maternity facility is about 10 years old and was built to offer family-centered maternity care. There is a full-time certified lactation consultant on staff (a nurse), and several of the nursing staff are certified as lactation educators. The primary breastfeeding barrier put up by the hospital is that women who have semiprivate rooms, as is almost always the case for WIC participants, may not have their infants stay with them overnight. In other respects, the hospital is considered by WIC and center staff to be supportive of women who choose to breastfeed.

III. Intervention

A. Service Provision

Near North Center's breastfeeding promotion project began in mid-1986 with the director of nutrition developing a preliminary plan. In the fall of 1986 a Near North Health breastfeeding task force was formed to review the plan and to work towards its implementation. The overall project goal was to achieve breastfeeding rates substantially higher than those commonly associated with low-income, inner-city Black and Hispanic communities.

The task force decided that during fiscal year 1987, the promotion project's first year, four components would be emphasized: 1) collaboration and linkage with affiliated hospitals, 2) provider education, 3) motivation and education strategies to encourage breastfeeding, and 4) an improved client tracking system.

Several important premises underlay the task force's work. Though the center's WIC program would have the lead role in promoting breastfeeding, the project was an NNHSC initiative and not just a WIC initiative. The breastfeeding promotion project was fully supported by the NNHSC administrator as well as by the center manager and medical director. Importantly, the support given was more than verbal. NNHSC was willing to put its own funds into the project and also make necessary adjustments so that key staff could work on committees, attend workshops, and most essentially, provide the level of service envisioned. The institutional support was especially important because one of the objectives of the project was to challenge established ways of providing health services.

Another key premise was that efforts focused solely on WIC would have minimal effect. The project's position was that first, WIC-sponsored breastfeeding promotion activities must be integrated with the prenatal, postpartum and pediatric care offered at the Near North Center, and second, the center services as a whole must be integrated with those provided at the affiliated hospital.

B. Project Processes

Prenatal Contact. Breastfeeding promotion is now a standard part of prenatal medical visits. An obstetric nurse practitioner active on the center's breastfeeding committee noted that the following usually occurs during the first few prenatal appointments:

- During the first prenatal visit the patient is asked whether she plans to breast- or bottle-feed;
- A prenatal breastfeeding survey is completed for use as a counseling tool; and
- Probreastfeeding literature is given to the patient, usually a brochure entitled "Why breastfeed?"

Breastfeeding is again emphasized during a visit in the third trimester, when the obstetric nurse practitioner shows a movie to the pregnant patients, and talks with them about breastfeeding. Women inclined to breastfeed whose delivery is scheduled for the affiliated teaching hospital are given the name of the hospital's lactation consultant and the hospital's breastfeeding hotline number.

By design, wherever prenatal care is provided, there is a breastfeeding poster in the vicinity. As part of the breastfeeding initiative, a large number of posters were bought and hung in each waiting and examination room throughout the obstetric and pediatric wing of the Center.

The breastfeeding promotion project has to some extent been successful in changing clinic procedures so that breastfeeding promotion is more integrally linked with obstetrical services. Before, infant feeding discussions generally would arise during prenatal visits only if the patient had particular questions. The project has introduced a formal interview and other procedures to ensure that the patient is well informed and that any concerns about breastfeeding have been discussed with a health care provider. The next envisioned step, just beginning, is to have a prenatal appointment with a pediatrician scheduled specifically to discuss infant feeding.

WIC Certification and Counseling. One of the most important elements in Near North Health's approach to breastfeeding promotion is the WIC nutritionist's counseling role. The staffing pattern was specifically designed to allow the nutritionist ample time to work with high-risk, prenatal participants. The Near North Health WIC nutritionist carries a caseload of about 500 participants, as compared to the State average of approximately 1,500 participants. Most prenatal certification visits last from 45 minutes to an hour, and the nutritionist expects to complete only 10 to 12 a day. According to program staff, this compares with 30 certifications per day which are standard at some other Chicago area WIC sites.

The WIC nutritionist certifies all prenatal participants. The bilingual dietetic technician translates for Hispanic participants who do not speak English. Followup appointments are scheduled as necessary and may be as often as weekly for high-risk participants. In general, young and high-risk

participants are counseled monthly or every other month during voucher pickup. Because of the repeated contacts, the nutritionist is able to establish more trust and rapport than would otherwise be possible.

Prenatal participants usually are referred to the WIC program by the center's obstetric staff. The patient brings the referral form to the WIC office and is scheduled for a certification visit.

Prenatal certifications are conducted individually at the nutritionist's desk in the large and busy WIC office. A partial description of one of the observed certifications illustrates the nutritionist's counseling style. The nutritionist was working with a young participant and was concerned about her illicit drug use and her poor weight gain, among other things. Despite many potential distractions occurring in the room, the nutritionist held the participant's attention throughout the counseling session. The nutritionist used a warm and direct tone and frequently addressed the participant by her first name. Using the first person, she expressed her concern that the young woman might deliver a low birth-weight baby. The young woman seemed to respond well to this approach, and appeared to become noticeably more involved in her own care.

Throughout a discussion of breastfeeding, the nutritionist repeatedly used the phrase, "It's to your advantage." To the nutritionist's "I think it is best for you. Do you think you will give it a try?" the young woman smiled and nodded her head. At the session's end, the young woman was told to come back for another visit in 2 weeks, after her next prenatal medical appointment.

Group Education Classes. The Near North Health Service WIC Program offers a number of nutrition education classes to its participants. Two are especially related to breastfeeding promotion -- the prenatal breastfeeding class and the postpartum infant feeding class.

The prenatal breastfeeding class is taught once each month in conjunction with a prenatal diet class. That is, they are taught one after the other to the same group of participants. The two, half-hour long classes are said to be well attended, and 17 participants were present at the class offered during the case study visit. The breastfeeding class for prenatal women was particularly successful in capturing the interest and keeping the attention of the inner-city WIC participants. The instructor posed questions to the participants, such as "What are the advantages of breastfeeding," and then used the participants' remarks as the starting point for her own discussion. She was particularly effective in eliciting and then removing possible barriers to breastfeeding.

Another instructional technique was to use four life-size infant dolls. While the instructor used one of the dolls to demonstrate correct positioning and how to breastfeed discreetly, she passed three other dolls around the room and encouraged each participant to try the various positions with the dolls. (Although the observed class was taught by a community volunteer who was an experienced childbirth educator, the techniques are also used by the nutritionist when she teaches the class.)

The postpartum infant feeding class is for both breastfeeders and bottle feeders. The nutritionist usually opens the class by asking who, if anyone, is breastfeeding, in order to modify the class's content accordingly. In the observed class, all participants were currently bottle-feeding, although some had breastfed and already weaned.

One of the methods the WIC program uses to increase attendance at its classes is to have every participant sign a "contract" stating that they agree to attend at least one class per certification period. Also, to make the classes more attractive to Hispanic participants with poor English skills, the dietetic technicians offer both the prenatal breastfeeding class and the postpartum infant feeding class in Spanish.

The Breastfeeding Support Group. In addition to the above group education classes, a breastfeeding support group, jointly led by the WIC nutritionist and the obstetrical nurse practitioner, meets monthly. Group meetings usually consist of a short presentation by one of the staff, followed by questions and discussion. Although all pregnant and breastfeeding women are invited by letter to attend, and a free lunch is provided, the prenatal turnout is low. A small core of breastfeeding women, however, do attend regularly. Several obstetricians have offered to try to increase prenatal attendance by personally inviting prenatal participants.

Formula Bank. The formula bank account plan is an incentive plan designed to encourage exclusive breastfeeding for up to 5 months. NNHSC's WIC staff believed that one of the barriers to the continuation of breastfeeding is the WIC program itself, in that it provides greater material benefit to women who bottle-feed. It was felt that some mothers had, in effect, conflicting desires in that they both wanted to continue breastfeeding and wanted to receive formula.

The formula bank account plan was developed as an alternative motivational structure. Participating mothers accrue 15 cans of formula per month for every month they exclusively breastfeed, up to a maximum of 5 months. The "banked" formula, supplied by a formula company at no cost to the WIC program, is available to the breastfeeding participant when she decides to stop exclusive breastfeeding. The formula bank enrollment card also provides the names and telephone numbers of the participants' breastfeeding support contacts at the health center and at the hospital, as well as the hospital's breastfeeding hotline numbers. It is hoped that the participant will use these resources when tempted to begin bottle-feeding during the first few months.

At the time of the case study the formula bank account plan was still relatively new. Only 10 women were enrolled, and observation and interview data suggested that the formula bank's overall impact on breastfeeding decisions is relatively minor compared to other breastfeeding promotion activities. The WIC program plans to continue the formula bank through fiscal 1988, then formally evaluate its usefulness.

Hospital Agreement. One of the key elements in NNHSC's approach to breastfeeding promotion is emphasis on continuity between the breastfeeding support provided prenatally at the health center and the support provided by the delivering hospital. In the case of the Near North Center, historically there has been a good relationship between the health center and the hospital. They have worked together previously on nonbreastfeeding-related projects, the health center's obstetricians have admitting privileges at the hospital and are well known to hospital staff, and NNHSC's director of nutrition was an adjunct teaching member of the hospital staff. Additionally, the hospital historically has taken a progressive position in the area of breastfeeding promotion.

Nonetheless, the NNHSC WIC program believed there were a number of areas either where hospital practices could be improved to better support the Near North's low-income patients or where services could be better coordinated. In order to bring about these changes, a joint committee was established to develop a formal contract between the health center and the hospital. The contract clearly specifies the breastfeeding-related services that are to be provided by the hospital, the center, and the WIC program (a copy of the contract is included in exhibit 18).

The health center wanted the contract to resolve two issues: (1) delays in WIC certification following delivery and (2) the hospital's practice of giving free formula packs to all patients at discharge. Since the delays in WIC certification were caused by incomplete paperwork, the signed agreement commits the hospital to completing WIC newborn and postpartum referral forms prior to discharge. The agreement also specifies the elimination of formula discharge packs for Near North Health Center's patients who breastfeed. In addition, the agreement stipulates that technical assistance will be given to Near North clinical staff as needed, and that adequate information will be provided as appropriate to low-income women. The contract also commits the Near North Center and its WIC program to the full range of breastfeeding and support activities discussed earlier under "Intervention."

The NNHSC staff see the hospital contract as a significant achievement in that it implicitly recognized the health center and the hospitals as equal partners in providing health care for low-income women. The NNHSC staff caution, however, that obtaining the agreement required a much greater time commitment than they expected. While the hospital obstetrical and nursery staff were supportive of the agreement, obtaining an official hospital commitment required many bureaucratic steps and the involvement of many hospital administrators.

Postpartum Contact. The WIC nutritionist is able to provide further information, advice, and encouragement to breastfeeding participants during the postpartum certification which usually now occurs 1 to 2 weeks postpartum. The nutritionist also makes telephone calls to women who have not kept their scheduled postpartum WIC appointments. Though primarily made for the purpose of appointment compliance, the calls also give the nutritionist the opportunity to inquire about feeding method and to offer support to those who are breastfeeding.

Professional Training. Staff involved with the development of NNHSC's breastfeeding program realized early that while clinic doctors, nurses, and clerks were mainly supportive of breastfeeding, few had had any formal training in breastfeeding promotion. Therefore, provider education became an important component of the project's first year. As well as receiving inservice training at the clinic, clinic aides and clerks were sent to WIC regional and State breastfeeding seminars. A special 8-hour course on breastfeeding promotion was arranged for nurses and WIC staff with the lactation consultant at the affiliated hospital. In addition, plans were made to send the WIC nutritionists to the week-long course on pediatric nutrition given at the University of Iowa.

Professional self-education is also encouraged and supported through the clinic's purchase of breastfeeding-related books. A small but growing professional library is maintained for staff use and includes books such as "Drugs in Pregnancy and Lactation. A Reference Guide to Fetal and Neonatal Risk" (by Briggs, Freeman and Jaffee, ICEA); "Lactation: Physiology, Nutrition, Breastfeeding" (by Neville and Neifort, Birth Life Book Store); and "The Nursing Mother's Companion" (by Harvard University Press).

Educational Materials. Breastfeeding education materials for participants were purchased after careful review. Most visible are the 25 breastfeeding posters produced by the Philadelphia's Child Nutrition Project, which are hung as semi-permanent fixtures throughout the center. Most are mounted on a sturdy backing, and the ones in the WIC office are framed. Several other breastfeeding posters, in both English and Spanish, are also displayed in the WIC office and waiting room.

The audiovisual materials favored by the WIC nutritionist include "Simple Memories," a slide show produced by the Milwaukee Task Force on Breastfeeding; "Precious Moments," a slide show by Pat Bull (of Naperville, Il); and a set of four videotapes by Kitty Franz of the University of California at Los Angeles Nursing Extension.

The WIC staff's preferred written materials include the brochure series produced by Health Education Associates (of Glenside, PA), in particular, "Fathers Ask: Questions About Breastfeeding," and booklets by Childbirth Graphics (of Rochester, NY).

IV. Outcomes

A. Client Outcomes

Program figures provided in September 1987, based on a newly implemented tracking system, indicate that over 50 percent of the Near North Health Center WIC participants were breastfeeding at hospital discharge, either exclusively or with supplemental formula. The rates, by ethnic group, are shown in exhibit 19.

Because the prior record system could not provide equivalent data, it is difficult to evaluate the change associated with the introduction of new breastfeeding promotion activities. One indication, though, of the center's performance relative to other WIC programs in Illinois is provided through comparing the number of infants certified as being breastfed to the total number of enrolled infants. For the 6 months prior to October 1, 1987, the ratio at Near North was 25 to 319 (8 percent). The comparable ratio for the State of Illinois was 2,638 to 65,258 (4 percent).

The breastfeeding incidence rates must also be considered in relation to the served population. In particular, the Black population served at Near North is young and includes a large number of single mothers and unplanned pregnancies.

A physician who has worked at NNHSC for almost 20 years offered some perspective on the program's effect on Black adolescent mothers. According to the physician, "The program is making inroads in that now they are considering breastfeeding. Before it was automatic that they would bottle-feed."

B. Project Outcomes

When asked to comment on the breastfeeding initiatives at NNHSC, the regional WIC nutritionist praised the program because it was innovative, comprehensive, and well implemented. "They are different here," she said. "They plan and they plan well. They set objectives and subobjectives. They follow through, they evaluate, they revise. They have become a model for the region."

The overall probreastfeeding atmosphere of the health center was commented upon by an obstetrician who recently began work at Near North Health. She noted that the center's emphasis on breastfeeding has stirred her to learn more about lactation. With some amazement she noted that "breastfeeding was totally, absolutely absent from my obstetrical residency. I was never asked about it on exams or boards." While she was educating herself on breastfeeding, she was referring patients with questions and problems to the obstetrical nurse practitioner.

In the long run, perhaps the most far-reaching effects of NNHSC breastfeeding promotion initiatives are related to the lead role the program is taking in restructuring the way breastfeeding is supported and encouraged at community health centers and affiliated hospitals. Because of the program, physicians and nurses are taking on new roles. For example, the center pediatricians are now establishing prenatal appointments in order to discuss infant feeding, and are being trained to conduct breast exams as a normal part of well-baby checkups. In most health institutions infant care is sharply separated from maternal health services.

Part of NNHSC's success is due to its context. For a comprehensive health care center, NNHSC is a relatively small unit, much smaller than a hospital or a large WIC program such as that operated by the Chicago Board of Health. A few people with innovative ideas and commitment have been able to induce changes. The same sorts of changes might be harder to induce in a different institution. Additionally, the Near North WIC Program has

received in-kind support from NNHSC and supplementary funds to serve especially high-risk participants from the city's Infant Mortality Reduction Initiative Program.

V. Summary

The Near North Health Service WIC Program is one of three service sites operated by the Near North Health Services Corporation (NNHSC) in Chicago, IL. At Near North Health Clinic WIC, 626 participants are served by a nutritionist, a dietetic technician and a clerk. A nutrition director, who is partially WIC funded, and a coordinator plan and oversee activities for all three service sites. The Near North site serves a primarily Black population with a significant Hispanic minority, and a small portion of whites.

The WIC program is situated in a full service health center and the services of the two are fully integrated. NNHSC receives $60,000 in State WIC supplemental funds through the State-sponsored Infant Mortality Reduction Initiative. This is shared among the three service sites and their affiliated sites.

The NNHSC has developed a comprehensive, integrated approach to breastfeeding promotion and implemented it at its three WIC sites. WIC services are integrated with the medical services provided by a community health center, and the health center services are integrated with those of the affiliated hospital. The central components of this approach include:

- development of strong, cooperative working relationship between the hospital, health center, and WIC program;
- establishment of a formal contract which specifies which breastfeeding-related services will be provided by hospital, health center, and WIC program staff;
- provision of breastfeeding promotion training for nurses, doctors, WIC program staff, and clerical staff;
- development of common strategies to motivate prenatal participants to try breastfeeding;
- development of common strategies to support participants who initiate breastfeeding; and
- development of improved breastfeeding assessment, tracking, and evaluation forms and procedures.

Although good historical or comparative data are not available, initial reports developed from the newly implemented tracking system indicate that breastfeeding is making inroads among Near North Center's traditionally bottle-feeding populations. Additionally, the breastfeeding initiatives appear to have drawn nothing but praise from the affected parties, including WIC staff, center staff, hospital staff, and WIC participants.

EXHIBIT 18

SERVICE AGREEMENT

NEAR NORTH HEALTH SERVICE/NORTHWESTERN MEMORIAL HOSPITAL
WIC BREASTFEEDING PROJECT

Courtesy of Near North Health Services Corporation, IL

This service agreement establishes the terms and conditions by which Near North Health Service Corporation will implement a breastfeeding project in the Near North community. The project will consist of action plans and activities to increase the incidence and duration of breastfeeding to participants enrolled in the WIC program. The goal is to see 50 percent of our clinic patients breastfeed upon hospital discharge and 25 percent of them breastfeed up to 5 months. This agreement dated January 1, 1987 between Near North Health Service Corporation hereinafter called NNHSC and Northwestern Memorial Hospital hereinafter called NMH (Prentice) respectively, is time limited, i.e., from January 1, 1987 to September 30, 1987. Through this agreement, an estimated 100 pregnant women will be screened, counseled, referred and followed to breastfeed.

The following outlines the responsibilities of each agency under the agreement:

A. NNHSC CENTER RESPONSIBILITIES:

1. Coordinate with other center program services (e.g., Parents Too Soon, D.C.F.S. Ounce of Prevention, OB-Gyn, Pediatrics, etc.) the promotion of breastfeeding.

2. Develop task force group among service providers (e.g., physicians, nurses, and nutritionist) to help coordinate program goals, monitor and review progress of project.

3. Identify and train support staff.

4. Identify and screen 100 or more pregnant women enrolled in NNHSC WIC program to participate in breastfeeding promotion.

5. Provide ongoing individual and nutrition education group sessions to all women, with topics focused on knowledge and behavioral skills needed to effectively encourage breastfeeding.

6. Use model motivational strategies, educational techniques and outreach to recruit and retain mothers to breastfeed up to 5 months or more.

    a. Visible display of breastfeeding posters to all pediatric and OB/Gyne examining rooms and waiting area.

    b. Free snacks and materials.

    c. Support staff to make personal contact by phone after discharge from hospital.

d. Promote the "Formula Bank Account Credit Plan." The incentive plan includes 15 cans of SMA iron-fortified infant formula per month for every mother that participates in the breastfeeding promotion for a maximum of 5 months.

7. Network with neighborhood hospitals and other health service agencies to implement the coordination process of two-way referral and followup.

8. Assess and followup behavioral changes of all mothers participating in the breastfeeding program through a special tracking system.

9. Submit a semiannual progress report in April 1987 (January 1 - March 30, 1987) and a final project report in September 1987, containing at a minimum the following information:

   a. Number of medical support staff trained.
   b. Number of pregnant women identified and recruited.
   c. Number of mothers breastfeeding.
   d. Number of mothers breastfeeding up to 5 months.
   e. Number of individual and group counseling contacts made.
   f. Evaluation of whether FBAP created a motivation and incentive to breastfeed.
   g. Evaluation of success of networking with hospitals in modifying their policy of giving take-home gifts of formula, support staff motivation and continuous support to mothers who made the decision to breastfeed.

10. Provide postpartum hospital visit by community outreach worker.

B. HOSPITAL RESPONSIBILITIES:

1. Collaborate on the development of training medical support staff in accomplishing the goals of the project.

2. Provide technical assistance to site health center staff as needed in identifying breastfeeding related problems.

3. Monitor the progress of the project through periodic observation and review of records if necessary.

4. Participate in patient education program by providing adequate information on breastfeeding directed to low-income women.

5. Make available hotline/direct line number to center patients enrolled in the program.

6. Present hospital policies and procedures to reflect:

   a. Early mother-infant contact
   b. Rooming-in
   c. Demand feeding
   d. Elimination of supplementary formula and water to breastfed infant unless otherwise prescribed by pediatrician
   e. Elimination of discharge formula gift packs to breastfeeding women enrolled at NNHSC

7. Complete WIC newborn and postpartum referral form and identify nutrition and health risks that will require followup.

8. Assist and support staff for any postpartum visit to all clinic patients.

NNHSC retains the right to review, renew, expand or cancel this agreement based on periodic evaluations. It is further agreed that NNHSC will not incur any additional expenses, charges or cost other than the ones needed to comply with the agency's portion of responsibilities.

Obstetrician (Center)	Director of Nursing (Hospital)
Medical Director (Center)	Certified Lactation Consultant (Hospital)
Director, Nutrition Services (Health Center/WIC)	Director, Normal Newborn Services (Hospital)
WIC Coordinator	

EXHIBIT 19

INFANT FEEDING PRACTICES AT HOSPITAL DISCHARGE:
NEAR NORTH HEALTH WIC PROGRAM PARTICIPANTS
GIVING BIRTH IN JUNE, JULY, AND AUGUST, 1987

Ethnic Group	Exclusive Breastfeeding	Partial Breastfeeding	Exclusive Bottlefeeding
Black	17 (25%)	8 (12%)	44 (64%)
Hispanic	21 (58%)	3 (8%)	12 (33%)
White	6 (100%)	0 (0%)	0 (0%)
TOTAL	44 (40%)	11 (10%)	56 (50%)

The Eau Claire City-County WIC Program
Eau Claire, Wisconsin

I. Overview

- **Local Agency Name:** Eau Claire City-County WIC Program
- **Type of Local Agency:** Health department
- **Service Site Name:** Eau Claire (one of two sites)
- **Location:** A university town (55,000 inhabitants) 90 miles east of Minneapolis-St. Paul
- **Service Site Staff:** Two nutritionists
  Two nutrition aides/clerks
- **Funding Sources:** WIC funds;
  In-kind contribution of space for program operations
- **Caseload:** 1,337 (Priorities I-IV)
- **Food Distribution System:** Retail purchase
- **Ethnicity:** White - 76 percent
  Southeast Asian - 22 percent
  Blacks, Hispanics, Native Americans - 2 percent
- **WIC Service Location:** Participant services located in parks and recreation building; administrative offices located within health department
- **Outside Services Integrated with WIC:** Not applicable
- **Key Breastfeeding Promotion Activities:**
  - Locally-produced prenatal breastfeeding profile form adapted from the work of a 1-year breastfeeding task force;
  - Breastfeeding support classes for prenatal and breastfeeding women;
  - Early postpartum support through telephone contact, postcards, letters and early breastfeeding certification;
  - Program services adapted to meet the needs of Southeast Asian population by simplifying forms and identifying special days to work with predominantly non-English-speaking refugees; and
  - Integration of breastfeeding support into all WIC activities.

II. Context

A. Community and Participant Characteristics

Eau Claire, WI, is a city of just over 55,000 inhabitants that lies 90 miles to the east of Minneapolis-Saint Paul. It is a regional hub that provides retail businesses and services for Eau Claire County (with 30,000 additional inhabitants) and for a number of surrounding rural counties. Eau Claire is also home to a campus of the University of Wisconsin system and to a post-secondary vocational training school.

The agency's caseload, as of July 1987, was 1,231 enrolled participants. Wisconsin's State mandate is to serve all qualified participants receiving incomes up to 185 percent of the poverty level. However, because of demand for services, the Eau Claire WIC Program is only able to enroll WIC priorities I through IV, and there is a waiting list for children over the age of 1 without a known high-risk factor and children who only have a dietary risk factor. No postpartum, nonbreastfeeding women are served.

Seventy-six percent of the enrolled participants live in families with incomes less than the Federal poverty level. Eighty-one percent qualify and receive some other form of assistance in addition to WIC. However, housing costs, food costs, and wages are less in Eau Claire than they are in a major urban area such as Milwaukee. Many in the caseload come from intact families where one or more adults hold stable employment, though the wages are low. Further, the educational level is relatively high -- almost two-thirds have completed high school.

The majority of the caseload (76 percent) is white. For the most part, the participants were born and raised in or around Eau Claire and are the descendants of Northern European immigrants. For this group, the shift to bottle-feeding was not as dramatic as it was among other groups. Many current WIC mothers report having been breastfed, or being familiar with breastfeeding for as long as they can remember. These participants are also very often predisposed to breastfeeding before they make their initial contact with WIC.

There are very few Blacks, Hispanics, or Native Americans in Eau Claire. Collectively, they account for only 2 percent of the enrolled participants. The significant nonwhite minority (22 percent) in the Eau Claire WIC program consists of Southeast Asians. They are almost entirely of Hmong background, originally from Laos.

The first Hmong families arrived in Eau Claire in 1976; each year since, new refugees have arrived, many of them relatives of those already settled in Eau Claire. Currently, about half are now secondary migrants. That is, they were originally settled somewhere else, such as Chicago or Philadelphia, and on their own decided to move to Eau Claire. In 1987 there were approximately 1,250 Hmong in the city of Eau Claire, 2.5 percent of the town's population.

When they lived in Laos, all Hmong mothers breastfed, but because of arduous conditions, malnutrition and disease, many children died. In the refugee camps in Thailand they were introduced to formula. Many Hmong decided that formula, not breast milk, was the perfect food for an infant. Both Eau Claire's public health nurses and WIC staff agree that it has been difficult persuading Hmong parents to return to breastfeeding. Many Hmong attach almost magical qualities to formula, to the extent that some mothers continue to give formula after the first year.

B. Local Agency and Service Site Characteristics

The Eau Claire City-County Health Department operates a variety of environmental, safety, refugee health, and public health programs, one of which is the WIC program. However, it provides relatively little in the way of direct medical services. Most low-income residents throughout Wisconsin qualify for a State medical assistance program which allows them to receive services from the private or nonprofit health provider of their choice, such as nonprofit clinics or health maintenance organizations (HMOs). The one area in which the health department is active in providing direct services is through its public health nursing program. In addition to other responsibilities, public health nurses make home visits to all high-risk infants and many first-born infants delivered in the city of Eau Claire or the surrounding county.

The WIC administrative offices are in the Eau Claire city-county building in a section occupied by health department staff. Voucher issuance, certification, and all personal client contact occurs not at the city-county building, but at the parks and recreation building several blocks away. Two to 3 days a week the WIC staff rearrange the tables and chairs in three adjoining rooms to create, as needed, a classroom, waiting room, office, or counseling room. In addition, 1 day a month WIC services are provided in Augusta, a small outlying community in Eau Claire County.

Staff. The Eau Claire WIC Program operates with a staff of four, consisting of a director/nutritionist, a nutritionist, and two clerk/nutrition aides. The background and training of the two-person professional staff is very similar. Both are registered dietitians, both have attended breastfeeding promotion workshops as part of State WIC nutritionists conferences, and both have had experience breastfeeding their own children. In 1986 the WIC director attended a Health Education Associates course on breastfeeding and it is expected that the nutritionist will be attending the same course.

The two clerk/nutrition aides have specialized training relevant to their WIC responsibilities. One of the clerk/nutrition aides was trained as a medical technician and, in addition to recordkeeping tasks, is responsible for obtaining height, weight, and hematocrit measures during the certification process. The other clerk/nutrition aide has a business background and is primarily responsible for recordkeeping.

Funding. The Eau Claire WIC Program is funded primarily through WIC administrative funds received through the State, the exception being in-kind space and administrative support services received from the City-County

Health Department. During fiscal year 1986 the funding level was $76,000, of which $17,000 (23 percent) was designated for nutrition education.

C. Community Efforts Related to Breastfeeding

WIC staff and WIC participants report that the two Eau Claire hospitals are currently very supportive of breastfeeding and have adopted practices that facilitate successful breastfeeding (e.g., not giving formula supplements to breastfed babies). Health providers believe that the current supportive climate toward breastfeeding is in part due to the efforts of a previous communitywide effort to promote breastfeeding.

The Eau Claire Breastfeeding Support Task Force was organized in May 1984 by Eau Claire's public health nutritionist as part of a 1-year State maternal-child health grant. Fifteen health professionals were active members of the task force, including maternity nurses, pediatric nurses, public health nurses, doctors, and the WIC program director.

The primary goal of the task force was to help women succeed at breastfeeding. "Success" was defined as a woman breastfeeding as long as she desired. The task force believed that many women in Eau Claire gave up breastfeeding in the first few weeks due to lack of knowledge and support. According to the task force organizer (who had previously been Eau Claire's WIC director), the WIC program's breastfeeding promotion efforts were often frustrated because other professionals were not giving helpful or accurate information regarding breastfeeding. For example, doctors frequently would advise mothers to stop breastfeeding if they had any sort of problem.

During the year of its existence, the task force organized meetings that brought together nurses from hospitals and clinics, doctors, lay support leaders, and other health professionals to share resources, discuss approaches to breastfeeding promotion, and improve communications.

The task force also collectively developed fact sheets related to the continuation of breastfeeding. One-page handouts addressed topics for mothers such as "How to Tell if Your Baby's Getting Enough Milk," "Sore Nipples," "Breastfeeding and Working," and "Community Resources for Breastfeeding Mothers." The task force also produced a "Prenatal Breastfeeding Profile" to aid health professionals in counseling prenatal participants regarding breastfeeding. (See exhibit 20.)

In 1987, 2 years after the task force disbanded, its work is still noticeable in Eau Claire. The WIC program, as well as other health care providers, still use the prenatal profile and the fact sheets, and according to the task force organizers, overall community awareness concerning breastfeeding seems to be higher because of the task force work.

Another institutional influence that has positively affected the Eau Claire WIC Program is the Wisconsin State WIC Program. The State WIC program has designated breastfeeding promotion as a key concern, established State objectives for incidence and duration, and stimulated the breastfeeding

promotion efforts of local programs. For example, the State collected and distributed statewide local agency-produced forms, questionnaires, and educational materials, as well as other information related to breastfeeding promotion initiatives.

III. Intervention

A. Service Provision

Since the WIC program began in Eau Claire in 1980, it has provided essentially the same services utilizing the same facilities and resources. During this time a series of WIC directors have refined the procedures and forms so that year by year the paperwork has been reduced and the patient flow has become more efficient. The efficiency translates into a busy but calm atmosphere during certifications, voucher pickups, and other high patient-flow activities. Staff are able to spend more time with a participant in need of extensive counseling than would otherwise be possible.

The program has infused ordinary WIC activities, such as appointment making and certification, with procedures that encourage and support breastfeeding, such as regularly scheduled breastfeeding classes with reminder postcards, early telephone contact and certification for the postpartum breastfeeding mother, and special sessions for the Hmong population. At the same time, the WIC staff have sought to maintain a pragmatic and accepting attitude with regard to the desires of participants. The program's approach seems to be that even though it is promoting breastfeeding, it does not wish to convey to a mother that she has failed if she does not choose to breastfeed, or if she supplements with formula once she begins.

The fiscal year 1988 breastfeeding objectives are to have 45 percent of the infants of WIC mothers receive breast milk as the first food and to have 30 percent of the infants of WIC mothers continue breastfeeding for 1 month or longer.

B. Project Processes

In order to achieve its objectives, the Eau Claire WIC Program has found a number of different ways to inform participants about breastfeeding, encouraging them to try, and supporting those who initiate it. Breastfeeding promotion is not something that occurs only at certain times, rather it is an ongoing process that begins before the first visit and extends through the last voucher pickup.

Prenatal Contact. When a prospective participant calls into the WIC office for information, the clerk or nutritionist receiving the call asks a number of questions to ascertain whether it is likely that the qualifying criteria will be met. If the individual is categorically and income eligible, an appointment is scheduled.

Several days prior to the appointment, a packet is mailed to the prospective participant. Included is a reminder of the appointment time and place, a prenatal questionnaire and a prenatal breastfeeding profile. The questionnaire is a State-developed form which includes a number of questions

relating to prenatal health and nutrition. The breastfeeding profile was developed by the Eau Claire Breastfeeding Support Task Force. It addresses the mother's experiences and attitudes towards breastfeeding and pinpoints breastfeeding topics about which the mother might have questions or desire additional advice.

On certification days the three rooms at the parks and recreation building are arranged so that one is a waiting room, one has two clerk stations, and one has two areas where the nutritionists can certify and counsel. A prenatal certification appointment begins with one of the clerks checking that the participant qualifies in terms of income, residence, and proof of pregnancy. The participant then sees the other clerk, who takes her height and weight and a blood sample for an evaluation of iron levels.

Next, a nutritionist reviews and completes the necessary forms and provides appropriate nutritional information. Breastfeeding is always discussed, though the approach the nutritionist takes and the actual topics discussed vary according to the experience and interests of the mother as indicated on her breastfeeding profile form. For example, a first-time mother might indicate an interest in the advantages of breastfeeding, while an experienced breastfeeding mother might desire information on nipple preparation. Each participant, unless she is firmly committed to exclusive bottle feeding, is given a breastfeeding information packet. The packet contains the handouts developed by the Eau Claire Breastfeeding Support Task Force, several pamphlets on breastfeeding from a formula company, and Health Education Associates brochures on breastfeeding.

The nutritionist also explains to the participant the program's recommendation that she attend two nutritional education classes prior to the birth of the child. All prenatal participants, except for those who indicate to the nutritionist they are firmly committed to bottle-feeding, are encouraged to make one of their selections the breastfeeding support class.

Participants who are uncertain whether or not they will breastfeed are often scheduled for an additional prenatal appointment. This enables the nutritionist to discuss again infant feeding relatively close to the delivery date. Prenatal counseling sessions with the nutritionist range between 15 and 20 minutes.

Group Education Classes. As noted earlier, participants are asked to attend two classes each certification period. Classes cover a wide variety of topics. Some are clearly nutrition classes; others branch out to touch on more general health and welfare issues of interest to participants, such as toilet training or dealing with 2-year-old children. Classes are taught by the WIC nutritionists, by public health nurses, and by specialists recruited from the community.

The nutritionists are responsible for the "WIC Times" a single-sheet, monthly newsletter containing the following month's calendar with voucher pickups and class times and topics. In addition, there are WIC notes and various nutrition information such as making baby food or ways to stretch "meat dollars."

Among the numerous classes offered, the breastfeeding support classes have a special status. They are the only classes for which staff actively recruit, encouraging both prenatal and breastfeeding participants to attend. Also, the WIC program sends reminder postcards to each participant signed up for the breastfeeding class.

Up until the fall of 1987, the breastfeeding support classes were offered during each voucher pickup day (three times a month) rotating three breastfeeding topics: introduction to breastfeeding; breastfeeding the first few weeks; and, returning to work or school while breastfeeding. The policy was rethought, however, because staff believed that by offering the class less frequently, class size would be larger and participants would be more likely to benefit from the conversation and support of other participants. For a 1-year period, comprehensive breastfeeding support class will be offered once a month, and then staff will assess advantages of the monthly schedule.

The two WIC nutritionists share responsibility for teaching the breastfeeding support classes. Although there is a detailed lesson plan, the class is somewhat different each time because the nutritionists intentionally adapt each presentation to the needs and interests of the participants attending.

The class observed during the site visit was a small class with three participants. The nutritionist began by stressing the naturalness of breastfeeding. She emphasized that although it was what everyone did for generations, there was now a need for breastfeeding classes because many women reach adulthood without seeing anyone breastfeed. The class went on to consider topics such as the physiology of breastfeeding and positioning the baby. Slides were used to illustrate various points. Mothers in the class who had already breastfed one or more children shared their experience with common problems such as engorgement and sore nipples.

In the class, as on other occasions, the goal was to encourage participants to breastfeed without making them feel guilty if they did not breastfeed, or only breastfed for a short time. During the class the instructor noted that for mothers who are in school or working, it is possible to supplement with formula when one is away.

At the end of the 30-minute class, postcards (see exhibit 21) were passed out to the prenatal participants. They were encouraged to mail the postcards back immediately after they give birth so that WIC staff could contact them and offer support or advice. They were also encouraged to call the WIC program before or after delivery if they have any questions relating to breastfeeding.

Postpartum Contact. Staff estimate that approximately 20 percent of the prenatal participants return their postcards soon after their children are born. For those who do, WIC staff are often able to talk with the new mothers by telephone within the first week or so. "The Breastfeeding Telephone Checklist" (see exhibit 22) is used to guide the telephone conversation if the woman is breastfeeding. The form is then filed in the participant folder for reference during the subsequent certification appointment. If they cannot be reached by telephone, breastfeeding support letters and pamphlets are sent to them.

For the great majority of participants, however, first contact occurs a few weeks after birth, when the mother calls to arrange a certification appointment for herself and her child. The clerk or nutritionist receiving the call will inquire about the status of mother and child and will arrange for a certification appointment as soon as possible. The program's goal is to enroll breastfed infants before they are 4 weeks old. As done for prenatal certification, the WIC program mails a reminder of the appointment time and a certification form to be completed prior to the appointment.

Procedurally, the postpartum certification visit follows essentially the same pattern as the prenatal visit. During the interview, the nutritionist discusses any infant feeding issues that may be pertinent. If the mother is breastfeeding, the nutritionist makes sure the mother fully understands breastfeeding basics, such as the relation between supply and demand. The nutritionist may also provide the participants with handouts or brochures pertaining to specific breastfeeding problems or issues.

Adaptations for Special Populations: WIC Services for the Hmong. WIC services provided for Hmong participants vary somewhat from the services described above. In order to best use the limited number of hours when a paid Hmong interpreter is available, the WIC program has designated one day each month to be Indochinese day. Certifications are done in the morning; voucher pickups occur during the afternoon; and group education classes are specially organized. If they desire, Hmong may come on other days, and a small number do; but most prefer to come on the day set aside for Hmong.

A second adaptation for the Hmong concerns the manner in which vouchers and records are kept. For a non-Hmong, Hmong names can be confusing. Rather than attempt to keep Hmong records in alphabetical order, as is done for other participants, the program clips together vouchers by family and numbers them. This small change greatly simplifies the work of the clerks.

A third adaptation concerns the State forms sent out to participants before each certification. The State forms are difficult to complete properly, even for a native English speaker. Translating the forms into the Hmong language was not feasible because until recently Hmong was not a written language, and few Hmong are fully literate in the Hmong language. The WIC program's solution was to create a special simplified English form for the Hmong which elicits only the most essential information. Participants either complete this form themselves or find someone to help them with it. Then, during the certification, the clerk or nutritionist, with the help of a interpreter, requests any additional information.

In addition to changing procedures, the WIC staff and the Eau Claire Health Department as a whole seem to have made a substantial effort over the last 10 years to learn about Hmong perspectives on life and to be sensitive to them in their work. For example, often in the past WIC staff might ask Hmong mothers, "Are you breastfeeding or bottle-feeding?" Apparently, Hmong mothers took it as a simple yes or no question, and believed that only if

they answered "bottle-feeding" would they get the maximum number of cans of formula. The fact that they breastfed the children for comfort at night and at other times did not seem relevant to the Hmong mothers.

Now in assessing infant feeding practices the WIC staff and other health care workers are more likely to ask a Hmong mother, "Do you ever breastfeed your baby?" They have tried to make the mothers understand that it is possible to breastfeed sometimes and also receive a half infant package. The WIC program's attitude has been that some breastfeeding is better than none.

IV. Outcomes

In 1984, prior to the Eau Claire Breastfeeding Support Task Force, 14 percent of the WIC mothers breastfed for 1 month or more. When the task force ended its year of meetings in 1985, the figure had risen to 21 percent. According to recent figures (covering the year July 1986 to June 1987), of infants born to mothers enrolled in the WIC program, 42 percent were breastfed at least once, 29 percent were breastfed for 1 month or more. These figures are close to the program's fiscal year 1988 breastfeeding objectives, which are to increase incidence to 45 percent and duration of 1 month to 30 percent.

A number of changes in Eau Claire are associated with this increase. One factor has been the WIC program's attention to breastfeeding promotion. Another has been the influence of Eau Claire Breastfeeding Support Task Force, of which the WIC director was a member. Additionally, the Eau Claire hospitals and other health providers have independently become more active promoters of breastfeeding over the last several years. (One indication of the effect of the non-WIC breastfeeding forces in the community is that of the 103 infants enrolled in the WIC program between July 1986 and June 1987 whose mothers were <u>not</u> in WIC prenatally, 52 percent were breastfed at least once.)

V. Summary

The Eau Claire City-County WIC Program is similar to many small city and rural WIC programs in terms of staff resources and funding. Also, like many other WIC programs, it is operated by the local health department and its services are not integrated with other health care providers.

The Eau Claire WIC Program is unusual because of a caseload that includes many relatively well-educated mothers who are predisposed to breastfeeding. Also, the WIC program has participated in, and reaped the benefits of, a communitywide breastfeeding promotion effort aimed at educating health care providers and producing appropriate educational materials.

Overall, what is most notable about the Eau Claire WIC Program's breastfeeding promotion efforts is that they are relatively simple and are well integrated into required WIC services. The program has found numerous ways to exploit the breastfeeding counseling and support possibilities that are present during prenatal certification visits, including the use of a participant-completed prenatal breastfeeding profile to focus the prenatal counseling. The program also encourages and supports breastfeeding through its educational contacts, especially the breastfeeding support class, and through providing appropriate educational materials.

Early postpartum support related to breastfeeding is provided through encouraging women either to call the WIC program after the birth or to mail in a program-provided postcard so the WIC staff can call them. Postpartum support is also provided during the postpartum certification which the program attempts to schedule during the infant's first weeks.

The WIC program has developed special strategies for providing breastfeeding promotion and other services to a significant non-English-speaking refugee population. A paid Hmong interpreter is available 1 day each month to assist with voucher pickup, certification and group education. In addition, as the staff become more sensitive to the Hmong culture, practices are adopted to ease cultural barriers such as the use of simplified forms.

EXHIBIT 20

BREASTFEEDING PROFILE

Courtesy of Eau Claire City-County WIC Project, WI

Name_____ Date_____

	yes	no
1. Will this be your first child?	___	___
2. Have you breastfed before?	___	___
3. Was it a good experience?	___	___

Why do you feel this way?_____

_____

_____

4. (If yes to No. 2) How many children have you breastfed?_____

How long?_____

5. (If yes to No. 2) Did you breastfeed as long as you had planned? ___ ___

6. (If no to No. 2) Why did you stop breastfeeding when you did?_____

_____

_____

7. Who will you feel comfortable calling if you have a breastfeeding problem?

_____

Check the topics you would like more information about.

____ Preparing your breasts for nursing

____ How to tell if your baby is getting enough milk

____ Treatment of sore nipples

____ Breastfeeding and working

____ Usual weight gain of breastfed baby

____ Baby's growth spurts and how to increase your milk supply

____ Normal bowel movements of breastfed babies

____ Breastfeeding positions

____ Breasts too full and hard (engorgement)

____ Introduction of solid foods

____ Weaning

____ People you can call for information about breastfeeding

EXHIBIT 21

FOLLOWUP POSTCARD

Courtesy of Eau Claire City-County WIC Project, WI

Congratulations on your new baby! We know you're very busy, and we'd like to help you with any questions or problems with feeding your baby.

We'd like to know:

Your name_____
Address_____
Phone No._____

Your baby's birthdate_____ birth weight_____

Are you breastfeeding? ___yes ___no ___Number of times/day (24-hrs)

Are you bottle-feeding?___yes ___no ___Number of ounces/day (24-hrs)

EXHIBIT 22

BREASTFEEDING TELEPHONE CHECKLIST

Courtesy of Eau Claire City-County WIC Project, WI

Mother's Name:_____ WIC #:_____

Infant's Name:_____ Birthdate:_____

Birthweight:_____ WIC Appointment:_____

1. How are you feeling?_____

_____

2. How is the baby doing?_____

_____

3. How is the breastfeeding going?_____

_____

_____

4. How often are you nursing the baby?_____

_____

5. Do you ever feel that you don't have enough milk?_____

Why do you feel that way?_____

_____

Have you found anything that helps?_____

_____

(Discuss growth spurts and the law of supply and demand at this time if appropriate)

6. Do you have someone whom you can call if you have a breastfeeding problem?_____

_____

_____

_____ _____

Signature Date

Centro de Salud Familiar La Fe
El Paso, Texas

I. Overview

- **Local Agency Name:** Centro de Salud Familiar La Fe WIC Program
- **Type of Local Agency:** Nonprofit neighborhood clinic
- **Service Site Name:** Centro de Salud Familiar La Fe WIC Program
- **Location:** Adjacent to the downtown section of El Paso, just north of the Mexican border
- **Service Site Staff:** Director (nutritionist)
  Four nutrition assistants/clerks
  Receptionist
- **Funding Sources:** WIC funds;
  Donations solicited to underwrite breastfeeding promotion activities;
  Breastfeeding classes and counseling provided by La Leche League as in-kind contributions
- **Caseload:** 1,300 (Priorities I-IV)
- **Food Distribution System:** Retail purchase
- **Ethnicity:** Hispanic (Mexican-American - 100 percent)
- **WIC Service Location:** WIC program located in full service clinic
- **Outside Services Integrated with WIC:** Prenatal and pediatric services (nonprofit clinic)
- **Key Breastfeeding Promotion Activities:**
  - Integration of La Leche League into WIC breastfeeding promotion activities;
  - Series of four La Leche League sessions attended by both pregnant and breastfeeding participants;
  - Fundraising activities in place of dues to cover La Leche League operating costs;
  - Annual breastfeeding update for professional health community in El Paso; and
  - Involvement of other clinic providers in breastfeeding promotion activities.

II. Context

A. Community and Participant Characteristics

Centro de Salud Familiar La Fe, Inc. (hereafter La Fe Clinic) is a nonprofit community health center which was founded in 1968 through grassroots community action activities. Since 1972 it has received Federal funds from the U.S. Public Health Service to provide comprehensive primary health care services for the residents of South El Paso, TX. The area has been designated as a medically underserved area (MUA) and as a health manpower shortage area (HMSA) by the Department of Health and Human Services (DHHS). In 1976 the Texas Department of Health awarded La Fe Clinic funds to establish WIC Project #28. At the present, the program serves a maximum caseload of 1,400 participants (priorities I-IV).

Participants are first or second generation Americans who emigrated from Mexico. Spanish is the first language for all and the only language for some. Single-parent families are common. According to WIC support staff, fathers are missing from about 40 percent of the households; therefore, mothers and their children are likely to be residing with other adult female relatives, e.g., grandmothers and aunts. Prenatal participants number about 155 and range in age from 13 to 45 years. WIC staff estimate that about 15 percent of this group are 13 to 15 years old. Nearly all in this youngest age range attend school during the day in a teen-parent program.

About 20-25 percent of the prenatal participants work mainly in the garment industry or small retail stores in the community; a few work in other parts of El Paso, mostly as maids. Other women as well as men are employed as day laborers on farms outside El Paso. Other employment options for men include factory and warehouse work. The remaining portion of the adult WIC participants receive government assistance of some kind. WIC staff estimate that about 20 percent of the unemployed are enrolled in clerical job-skills training through the Job Training Partnership Act.

Housing in the south-side neighborhood where the clinic is located consists of one-story or two-story rows of tenement apartments, low-rise public developments, and detached single-family dwellings. Sufficient water is a problem for some residents because water pressure is low, and a single water spigot may be shared among several families in a row of apartments.

Because household incomes are low, almost no one has an automobile, and only about 15 percent have telephones, according to WIC staff. Those with phones are often asked to relay messages to those without phones. Many walk over a mile to the clinic for services.

Cultural practices, beliefs, and traditions from Mexico combine with perceptions of U.S. lifestyles in interesting ways. On one hand, many WIC participants reflect myths about breastfeeding that have been handed down through generations. These include the beliefs that anger spoils a mother's milk; spiciness, a noted characteristic of Mexican food, hurts a mother's milk; and breastfeeding should not be done when a tragedy such as a death

occurs. On the other hand, bottle-feeding is viewed by some as a symbol of progress, and the American way. These views in conjunction with other socioeconomic conditions of urban living conspire against breastfeeding promotional efforts among a population where breastfeeding was the typical method of feeding a new infant in Mexico.

B. Local Agency and Service Site Characteristics

The Texas Department of Health, WIC Program #28, at La Fe Clinic is sponsored by the nonprofit neighborhood clinic in which it is housed, and is the local agency's only service site. It is located in the urban south-side section of El Paso, just under a half mile from the downtown area. The area served by La Fe Clinic extends to the southern edge of the city, which stops at the international border separating the United States of America and the United States of Mexico. Several international border bridges easily link the community with the Mexican border city of Juarez.

Since July 1987, La Fe Clinic has been situated in a converted church social center, thoroughly modernized. Medical and social services, including obstetrical and gynecological care, are provided on the ground floor. The WIC program operates in a suite on the second floor. Walk-ins are less frequent than when it was adjacent to prenatal services in the previous neighborhood facility, and the WIC program now depends more on clinic referrals. Fluctuations in clinic funding, and thus clinical services, sometimes result in late referrals to WIC. Another consequence of the move is that the walls cannot be decorated with breastfeeding and other educational posters and pictures. Such materials must now be placed only on existing bulletin boards, to keep the walls clean and free of tape.

Financial eligibility for the WIC program is set at 180 percent of the poverty level. Evidence of residence in the defined service area has been documented through rent or utilities receipts. However, beginning in 1988, an additional state requirement will be a Social Security card for all participants over 14 years. American-born children whose parents are undocumented and do not possess Social Security cards, will be denied services.

The site uses the retail purchase system of food distribution. Vouchers are issued monthly, in conjunction with nutrition education classes. When infant formula is issued to breastfeeding mothers, it is provided in powdered, concentrated, and ready-to-feed forms, depending upon the needs of the mothers. According to the WIC director, because of low water pressure or limited access to water, the issuance of ready-to-feed formula is reportedly higher at this site than at others in the State.

As defined by the State, women are considered to be breastfeeders if they breastfeed any number of times during the first month postpartum. The WIC director has instructed her staff not to issue infant formula to breastfeeding mothers without her prior approval. Thus, women experiencing breastfeeding problems are referred to the WIC director who tries to resolve

such problems, enabling mothers to continue breastfeeding. The impact of this policy is illustrated by the example of a breastfeeding woman who was issued medication by a physician and advised to discontinue breastfeeding. As a result of the intervention by the WIC director with the physician, an alternative medication compatible with breastfeeding was prescribed.

Staff. The caseload of approximately 1,300 participants is served by one professional, two aides, and two clerks who function as paraprofessionals, and a receptionist. All are Hispanic. The director has a bachelor's degree in nutrition and is working on a master's degree. She is also a certified lactation educator. Her staff are all high school graduates, and one has taken three college courses in nutrition. None of the paraprofessionals has formal training in breastfeeding, although all have exposure to the area through La Leche League sessions offered in the WIC program, and/or the breastfeeding conferences the agency sponsored.

The WIC director has identified breastfeeding as a priority educational topic. She estimates that she spends approximately 20 percent of her time on breastfeeding promotional efforts, which include organizational and administrative tasks in addition to counseling and classes. Support staff responsibilities regarding breastfeeding promotion lie principally in making appropriate referrals to the La Leche League leaders and the WIC director. The paraprofessionals occasionally lead a breastfeeding class, as they do the other nutrition education classes, closely following the outline in a module designed by the State WIC office or the WIC director. Inservice training on the use of educational modules takes place as needed at monthly staff meetings. The WIC director suggests that the system of service delivery could benefit from additional professional staff.

Funding. State-provided funds for the WIC program are allocated according to customary WIC funding guidelines. Within this allotment the WIC director estimates that approximately $300 is spent annually on supplies, telephone, and postage for La Leche League activities. The time investment of the La Leche League leaders and the fundraising efforts to cover their costs are described in the section on intervention and are not charged to the State WIC program.

Recordkeeping System. The recordkeeping system of the State does not distinguish between participant categories within WIC priorities I through IV currently served by the site. The August 1987 caseload summary indicates that 161 of its 1,366 participants were enrolled either as prenatals or breastfeeders. For her own purposes, the director developed a color dot coding scheme for participant food package ledgers which enables distinctions to be made among types of participants within priority categories. For example, infants born to WIC mothers can be distinguished from those who were not. Using this system, a breakdown of an October 1987 caseload of 1,297 included 178 pregnant participants and 31 breastfeeders. The largest participant category is children, of whom there were 721.

C. Community Efforts Related to Breastfeeding

The Hospital. At present, most women deliver at the county hospital. Interviews with staff indicate that hospital services for breastfeeding

mothers are improving, but are still far from ideal. Most WIC and clinic staff respondents agree that many of the hospital nursing staff are interested in helping mothers to breastfeed, but policies and protocols supporting breastfeeding are not in place. For instance, the hospital has no system for rooming-in. A recent improvement, however, is the designation of a nursing room outside the newborn nursery for the comfort and privacy of mothers who want to breastfeed at night. But while nursing staff offer classes to new mothers during the hospital stay, attendance at these classes is not actively encouraged.

The Extended Family. Despite the fact that the mothers of current participants are likely to have breastfed their children, WIC staff indicate, and interviews with mothers confirm, that they may exert a negative influence with regard to breastfeeding. The grandmothers breastfed their children in Mexico, where the cost of formula, when it was available, was prohibitive. Today, in the context of the stressful lives of first generation families, the older generation warns its daughters of the potential harm carried by their frustration and anger into their breastmilk, so young mothers are disinclined to breastfeed. Thus, a myth whose function may once have been to ensure that a breastfeeding mother be given a peaceful environment now contributes to the decrease of this feeding practice.

III. Intervention

A. Service Provision

The framework for the breastfeeding efforts in this WIC program has evolved over time, each step an outgrowth of preceding circumstances. No formal set of goals and objectives with an implementation timetable and evaluation procedures guides the breastfeeding promotion activities. The current stated goals and objectives are to continue to provide monthly La Leche League support groups and a followup breastfeeding class for prenatal and postpartum participants, and to organize an annual breastfeeding update workshop for professionals.

B. Project Processes

Organization of Services. Elements of the basic WIC program, as mandated by the State, consist of certification, voucher distribution, counseling, nutrition education classes, and recordkeeping. Nutrition aides and clerks perform these tasks on an interchangeable and rotating basis. The WIC director provides individual counseling to participants with special needs and conducts selected nutrition education classes as part of the basic program. Additionally, every WIC participant can access the medical, dental, optical, podiatry, ENT, Ob/Gyn, mental health counseling, adult literacy or citizenship classes, parenting and life planning classes, etc. as part of the comprehensive health care services offered by the sponsoring agency.

The State WIC office offers various standardized plans and related educational materials for nutrition education classes. In addition the State has approved breastfeeding promotion materials developed in Spanish by the service site in concert with the local La Leche League.

Nutrition education classes are offered at each monthly voucher-pickup appointment. In addition, prenatal and breastfeeding participants are scheduled together to attend La Leche League support group sessions provided monthly. For those completing the series of four different lessons on breastfeeding, the WIC director offers an additional breastfeeding class. Prenatal clients who have decided to bottle-feed are encouraged to attend the support group sessions nevertheless. Breastfeeding is occasionally the topic of a regularly scheduled nutrition education class which does not target prenatals. Participants are told that they can share information on breastfeeding with relatives, friends, and coworkers.

The basic WIC program at La Fe Clinic has been enhanced in four interrelated ways inspite of funding based on a formula that reimburses the sponsoring agency on the number of participants. As the only professional on the WIC program staff, the WIC director has recruited outside input in breastfeeding promotion from La Leche League, covered the operating costs of these additional services through fundraising activities, and reached out to the health professional community with breastfeeding promotional information by organizing conferences as the major fundraising activity. In addition, the WIC director has initiated efforts with selected health professionals in La Fe Clinic to develop an educational protocol intended to provide consistent breastfeeding information throughout the prenatal and postpartum clinical and WIC contacts. Each of these avenues of expanding breastfeeding promotional efforts is described below.

La Leche League. The working relationship between WIC and La Leche League dates back to 1983. After hearing a workshop presentation by a La Leche League representative, the WIC director asked the local chapter about beginning a Spanish language group with WIC program participants. The request represented a challenge for La Leche League. Members of La Leche League chapters nationwide are typically English-speaking, middle-class women interested in breastfeeding. WIC participants were virtually all Hispanic, requiring sessions in Spanish to accommodate those not fluent in English. Furthermore, the WIC participants by program definition were at a lower socioeconomic level and not necessarily interested in breastfeeding. Through persistence by the WIC director, two Spanish-speaking La Leche League leaders accepted. Both were acredited as leaders through La Leche League, and have been active in the non-profit organization for over 9 years. One has a bachelor of arts degree and extensive experience as a teacher. The other is a Registered Nurse and an International Board Certified Lactation Consultant (IBCLC).

At present, two Hispanic leaders work as a team with the WIC program. The general La Leche League approach to group sessions for WIC participants remains the same: informal discussions led by mothers for mothers. However, La Leche League leaders made some modifications to accommodate the special needs of WIC participants.

For example, La Leche League meetings initially conducted with WIC participants tended to involve the presentation of information by La Leche League leaders, with little or no participation by the WIC participants. Unfamiliar with this format, and having cultural attitudes different from those of the typical La Leche League member, WIC participants were reticent

to discuss an issue like breastfeeding with strangers or acquaintances. Moreover, in contrast to the strictly voluntary nature of other La Leche League associations, some participants were present only because they were scheduled to attend as an adjunct to picking up vouchers.

The La Leche League leaders use several ice-breaker techniques to encourage group participation. One consists of circulating a basket which contains a number of common items. Each woman chooses an item and describes its relationship to breastfeeding. If the woman whose turn it is has no answer, another might respond. The leaders build upon the answers supplied by the participants to provide important information in a comprehensible and meaningful way. A few examples illustrate how the technique works: a party dress -- breastfed babies spit up less so clothing stays cleaner; Tylenol -- breastfed babies get sick less often; an airline ticket -- it is easy to move around with a breastfed baby because there is no formula to carry.

From a communication standpoint, messages were simplified, and the same messages were stated in several ways to increase participants' understanding. Simple one-page written materials which could be photocopied were developed to highlight basic information, instead of using more complexly written, copyrighted materials available for purchase from La Leche League International. In addition, homemade posters were created to illustrate basic points about breastfeeding. The class sessions last about 1 hour each, although La Leche League leaders will frequently spend another hour answering participants' questions on an individual basis. The two La Leche League leaders estimate that they each spend about 8 hours per month planning and conducting the support groups, providing individual counseling immediately following the meeting, and doing telephone counseling. In addition, La Leche League leaders each make two or three home visits with WIC participants annually and conduct two or three special inperson counseling sessions with participants at the WIC program site annually. Each also spends about a week developing and participating in the annual breastfeeding workshop for professionals.

Fundraising Activities. Although La Leche League leaders receive no payment for their services, they incur operating expenses such as transportation, telephone, and postage which are customarily covered by individual membership dues. In 1987, the annual La Leche League membership fee was $25.

This system of covering La Leche League expenses was inappropriate for WIC participants, given their very limited economic resources. Accordingly, the WIC director proposed a system of an optional individual contribution by WIC participants (which has been adopted), and she looked for alternate ways to cover La Leche League leader costs.

The primary fundraising technique adopted by the WIC director was the design and implementation of conferences on breastfeeding for El Paso health professionals where conference participants were asked to make donations to support La Leche League operations with WIC. The first conference brought in about $120 from an estimated 60-90 participants. Thus far, two annual conferences have produced sufficient funds for continued La Leche League efforts with WIC participants.

In organizing the conferences, local community resources were tapped to support professional continuing education and the extra services provided by La Leche League. A local university provided free conference space, and local health professionals, in addition to the two La Leche League leaders, donated their time to design the conferences, and some served as speakers. Speakers from other parts of the country were willing to give up honorariums. Remaining conference costs such as materials, speaker transportation, lodging expenses, and refreshments were estimated at about $1,500. These were underwritten by infant formula companies. However, a suggestion for future conferences is to seek donations from manufacturers of breastfeeding-related products instead.

The community contacts which resulted from the first conference expanded the participating professional network for the second conference. For instance, a contribution of $250 was received from a new community resource identified by a planning committee member who joined the group after having attended the first conference.

People with special skills created items which were sold or exchanged for donations at the conferences. At La Fe Clinic, a surgeon developed a breastfeeding logo, which was silk-screened on T-shirts given to conference participants for a minimum donation, and printed on bumper stickers that were sold. In addition to funds, consciousness was raised through the logo's slogan, "Better Brighter Babies Through Breastfeeding." (See exhibit 23.)

Conferences as a Means of Sharing Information on Breastfeeding. In addition to providing funds for supporting La Leche League efforts in WIC, conferences provided a forum for sharing information about breastfeeding with health professionals in the community. The WIC program and local La Leche League leaders learned from their experiences in putting on the first breastfeeding conference so that their second conference went more smoothly.

Planning was more formalized for the second conference, and a planning committee was established that drew upon the expertise of other health professionals, in addition to the WIC director and La Leche League leaders. Planning committee members identified key elements needed to promote, implement, and evaluate the conference in advance. These elements included:

- design, printing, and distribution of a brochure describing the conference;
- radio, TV, and newspaper publicity announcing the conference and covering conference content;
- identification of speakers, their topics and curriculum vitae with organization into an agenda;
- procedures for pre- and at-conference registration;
- determination of conference site, layout, and logistics;
- development of conference evaluation forms;

- arrangements for food and refreshments; and

- development and reproduction of educational materials to be distributed at the conference.

The conferences have produced momentum in breastfeeding promotion among staff at hospitals serving El Paso. Building upon the interest in the last conference, the UCLA's Lactation Education Training Program, for the first time done in Texas, was a successful training effort. The majority of health professionals who attended the program came from the most relevant hospitals in El Paso. It was a tremendous step forward for the welfare of breastfed babies and especially for the mothers, because now El Paso has more professionals who can be contacted concerning any issue about breastfeeding.

Coordination with Clinical Staff. The WIC director has interacted with clinic staff to obtain additional support in breastfeeding promotion. Her efforts have been most fruitful with three staff members: the obstetrics nursing coordinator, the family planning coordinator, and a pediatrician. All are great supporters of breastfeeding. The pediatrician was a speaker at the second breastfeeding conference and Kellogg Project was responsible for the logo. The support of the administration office made possible all of the intentions to promote breastfeeding.

Plans are in process for developing a breastfeeding module for prenatal clinic classes. All three clinic personnel and the WIC director will work together to determine the contents of that module to assure that breastfeeding information provided in the clinic is compatible with that provided through the WIC program.

Educational Materials. Written materials are a high priority for this population, but resources to develop culturally relevant materials in Spanish are not available from State WIC funds. One visual aid which the director believes to be popular with mothers is a poster displayed in the classroom on which photographs of different breastfeeding mothers are featured each month. Also, the basket of breastfeeding-related items used by La Leche League leaders was observed to effectively stimulate lively participation among WIC participants.

A packet of training materials was developed for distribution to participants in the second annual conference which uses the original breastfeeding logo on its cover. Among its contents are a page on tips for counseling Hispanic women, samples of the simplified one-page information handouts developed by La Leche League, instructions for a game of "breastfeeding bingo", a "breast is best" crossword puzzle, and a list of sources for breastfeeding aids. This unusual collection of materials provides an upbeat way for stimulating professional interest in breastfeeding promotion as an adjunct to conference presentations. The two games are included as exhibits 24 and 25.

IV. Outcomes

At La Fe Clinic positive outcomes are most evident in qualitative rather than quantitative ways. An accurate quantitative evaluation is not possible because historical data are unavailable. Using the color dot coding system, it is possible to calculate the rate of breastfeeding for the current month's

return appointments by tallying the issuance of different food packages for infant WIC participants born to prenatal WIC participants. Of the 123 such charts for September 1987, 21 (17 percent) were enrolled as breastfeeding infants at least 1 month of age. Of these infants, nine (43 percent or 7 percent of all infants) could be presumed to be exclusively or nearly exclusively breastfed, based on the absence of any formula package. In contrast, the WIC director recollects that about half this many women were breastfeeding when she first started in 1983.

Changes in the behavior of women participants that have occurred over the years that the La Leche League intervention has been in place indicate that the WIC program has created a more supportive environment for breastfeeding. At first women were reluctant to speak and participate in the support groups, and left the room if they wanted to breastfeed an infant while the session was in progress. La Leche League leaders report that there is now less reticence and a greater openness on the part of the women. This is supported by the observation of several women breastfeeding their infants during support group and class sessions.

Another outcome is the shared perception among members of the clinical staff that the WIC director is effective in the area of breastfeeding promotion and is looked upon as a resource in this area. This is substantiated by the cooperative efforts initiated by the WIC director with clinic staff to develop jointly a breastfeeding program, and with the citywide health community to involve them in annual breastfeeding workshops and a special lactation workshop.

In the public hospital, the creation of a nursing room beside the newborn nursery was an outgrowth of one of the conferences and can thus be attributed to the efforts of La Fe Clinic WIC program.

Finally, the integration of low-income Hispanic women into La Leche League is viewed by the La Leche League organization as a model for outreach to the Hispanic community. The two local leaders have shared their approach and materials at state and international La Leche League conferences.

VI. Summary

Centro de Salud Familiar La Fe is situated in a full service, nonprofit neighborhood clinic in El Paso, TX, near the border with Mexico. Its staff of six (director/nutritionist, four nutrition aides/clerks, receptionist) serve a Hispanic caseload of approximately 1,400 participants.

By focusing energy on professional outreach and organization of services, the WIC director has integrated additional support for breastfeeding into the WIC services and has made an impact upon the health community citywide. La Leche League services have been incorporated into WIC and the leaders run a monthly support group which includes pregnant and breastfeeding participants. Innovative methods are employed to stimulate participant involvement at group sessions.

As an outgrowth of the need to fund the La Leche League component, an annual breastfeeding update workshop for professionals has evolved. Further, arrangements are under way for local hospitals to fund intensive training in lactation management for selected staff. State-supplied class modules enable the WIC director to devote substantial energies to organization and outreach by providing the tools with which the paraprofessionals may independently run classes on lower-priority topics.

A 1-month chart review of infants born to prenatal WIC participants indicated that 17 percent of these infants were enrolled as breastfed infants by at least 1 month of age, and 43 percent of the breastfed infants were likely to be exclusively breastfed, as they received no formula supplements in their WIC food package. Numerous sources have provided subjective assessments that the WIC program has been successful in delivering breastfeeding support services to the WIC population, and it has stimulated interest and activism among professionals in El Paso. Additionally, the WIC director has been able to involve the WIC activities in a national obesity study on Hispanic children conducted and granted by the American Heart Association in Minnesota and the first Lactation Educators Training workshop in El Paso, from UCLA.

EXHIBIT 23

BREASTFEEDING PROMOTION LOGO

Courtesy of Centro de Salud Familiar La Fe, Texas

BETTER BRIGHTER BABIES

I attended the 2nd Annual
Breastfeeding Conference
El Paso, Texas May 15, 1987

THROUGH BREASTFEEDING

EXHIBIT 24

BREASTFEEDING BINGO

Courtesy of Centro de Salud Familiar La Fe, TX

Cover lap-sized cards with clear contact paper. Divide each card into 25 squares, 5 down and 5 across, as with a BINGO card. Spell out BINGO across the top, putting a letter above each column of squares. Leave a free space in the middle for a drawing of a breastfeeding women, or your organization's logo, etc. Within each space, write one of the advantages of breastfeeding listed below, beginning with the appropriate letter. Each card should be different.

Write each advantage to breastfeeding on a separate small card and put the 40 cards with the 40 advantages in a numbers cage, hat or brown bag. Pick a card from the cage, hat or bag, and call out the advantage written on it. Have mothers mark the corresponding squares with a crayon or erasable marker. The first one to spell BINGO wins.

Basicamente lo mejor para el infante.
Beneficia la madre a ser mas carinosa
Bancos de leche para emergencias
Bomba de leche ayuda a mantener la leche.
B- Bien formada para la salud del infante.
Bienvenida especial a este nuevo mundo
Buscando evitar alergias y enfermedades
Botellas solo para cuando quiera almacenar la leche.

Invita a la familia acercarse mas en union.
Indigestion controlada con la dieta de la mama
Importante para el infante recien nacido
I- Inmunidad garantizada en el colostro
Ideal para transportacion, picnics, shopping, etc.
Irritabilidad controlada con la dieta de la mama.
Igual de importancia para el padre como para la madre.
Imaginese el infante mas bello del mundo y es suyo!

Necesidad totalmente satisfecha
No botellas, formulas o esterilizar.
Nutricionalmente mejor que los suplementos
N- Natural planificacion familiar.
No programacion de horas
Nuestro orgullo en criar a los hijos con lo mejor.
Nacimiento, BENDICION para una madre!
Novedad siempre muy agradable

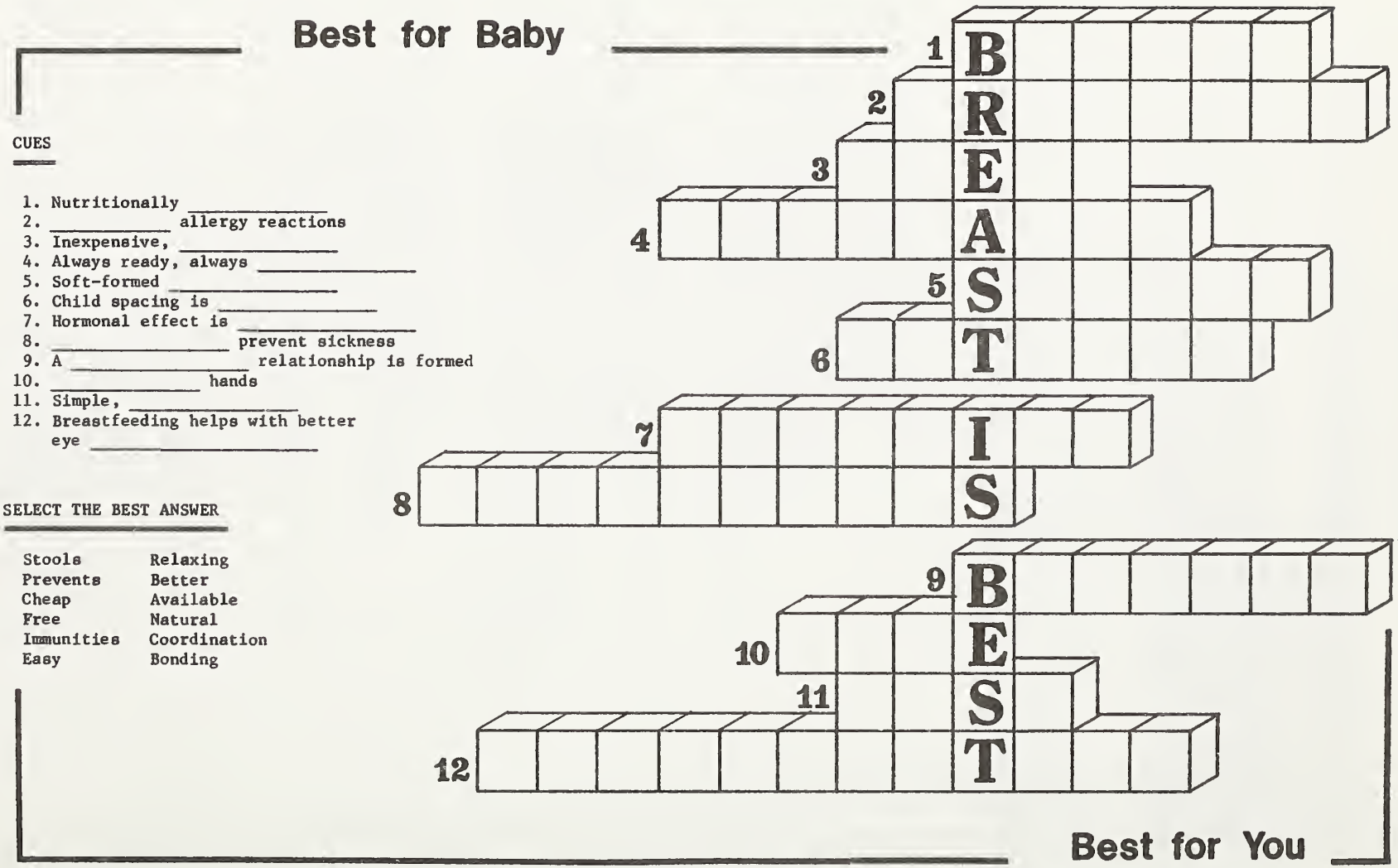
Gana peso individualmente de acuedo a su dieta
Guia para aumentar el carino y la paciencia
Ganancia emocional y economico
G- Garantizado mientras la madre lo desee
Generaciones en generaciones lo han usado
Grandes oportunidades para el infante y la madre.
Gusto personnel en ver el desarrollo de sus hijos.
Gracias por escoger dar pecho a su bebe.

EXHIBIT 24 (Cont'd)

Oportunidad de mejores relaciones de familia
Observa mejor las emociones del bebe
O- Olores mas favorables
Orientado a la naturaleza
Otorgado solamente para las mujeres
Official en toda el resto del universo
Originalmente desde tiempos muy antiguos
Objetivo: Salud, Amor, Economia y mucho mas

EXHIBIT 25

BREASTFEEDING WORD PUZZLE
Courtesy of Centro de Salud Familiar La Fe, Texas



CUES

1. Nutritionally _____
2. _____ allergy reactions
3. Inexpensive, _____
4. Always ready, always _____
5. Soft-formed _____
6. Child spacing is _____
7. Hormonal effect is _____
8. _____ prevent sickness
9. A _____ relationship is formed
10. _____ hands
11. Simple, _____
12. Breastfeeding helps with better eye _____

SELECT THE BEST ANSWER

Stools	Relaxing
Prevents	Better
Cheap	Available
Free	Natural
Immunities	Coordination
Easy	Bonding

EXHIBIT 25 (cont.)

BREASTFEEDING WORD PUZZLE
ANSWERS

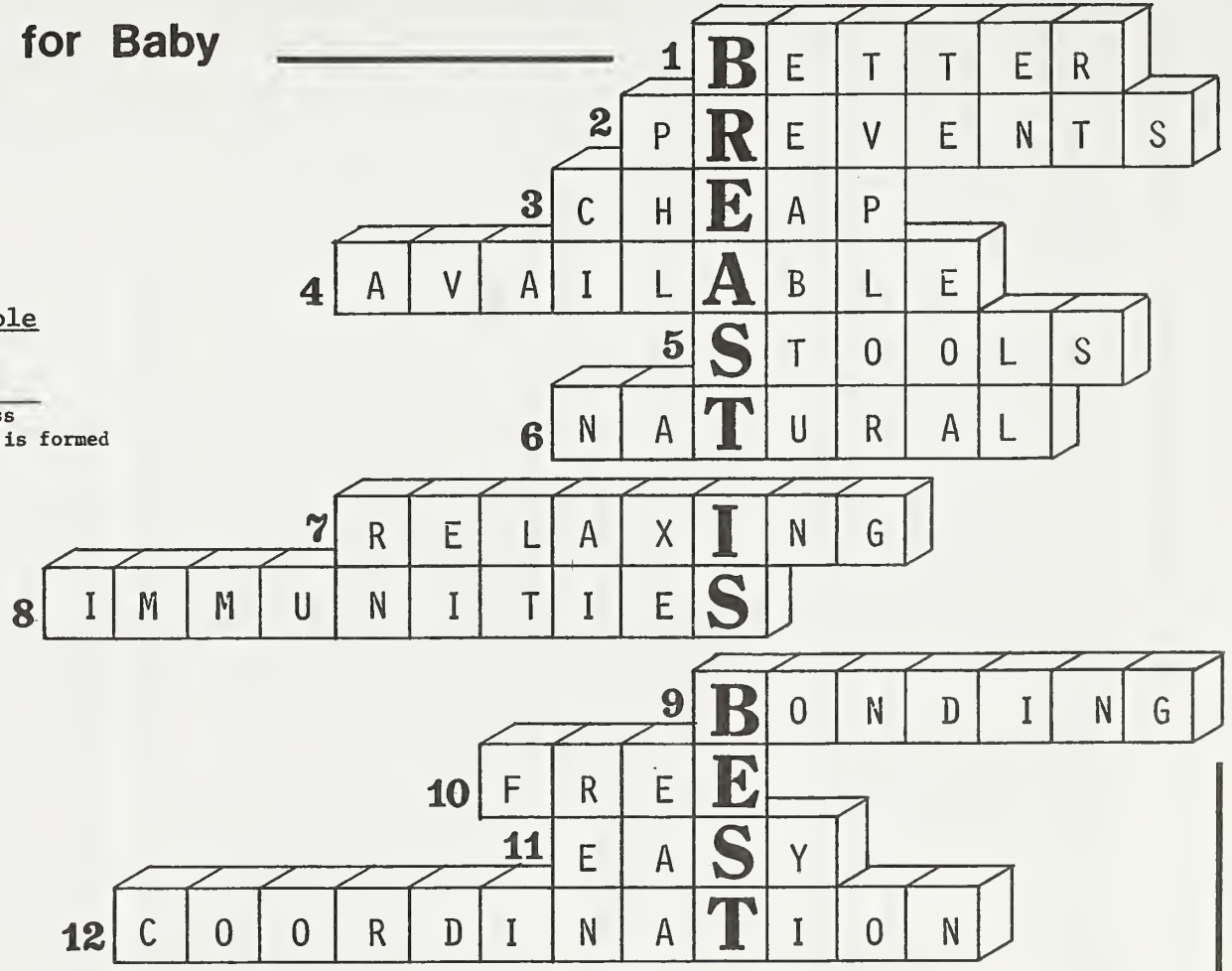
Best for Baby

CUES

1. Nutritionally better
2. Prevents allergy reactions
3. Inexpensive, cheap
4. Always ready, always available
5. Soft-formed stools
6. Child spacing is natural
7. Hormonal effect is relaxing
8. Immunities prevent sickness
9. A bonding relationship is formed
10. Free hands
11. Simple, easy
12. Breastfeeding helps with better eye coordination

SELECT THE BEST ANSWER

Stools	Relaxing
Prevents	Better
Cheap	Available
Free	Natural
Immunities	Coordination
Easy	Bonding



Best for You

South Health Center WIC Program
Los Angeles, California

I. Overview

- **Local Agency Name:** Research and Education Institute WIC Program (REI WIC)
- **Type of Local Agency:** Private nonprofit medical and education institute affiliated with the Harbor University of California, Los Angeles (UCLA) Medical Center
- **Service Site Name:** South Health Center WIC Program
- **Location:** The Watts area of Los Angeles, a poor urban area
- **Service Site Staff:** Site supervisior (health educator)
  Two nutrition assistants
  Two clerks
  Area supervisor (breastfeeding consultant to the site)
- **Funding Sources:** WIC funds ($76,000);
  Height, weight, hematocrit provided by private provider; space for program operations provided by clinic as in-kind contributions
- **Caseload:** 2,706 (Priorities I-VI)
- **Food Distribution System:** Retail purchase
- **Ethnicity:** Black - 61 percent
  Hispanic - 39 percent
- **WIC Service Location:** WIC program located in a full service clinic
- **Outside Services Integrated with WIC:** Not applicable
- **Key Breastfeeding Promotion Activities:**
  - Two prenatal breastfeeding classes;
  - Early postpartum phone call;
  - Early postpartum WIC certification appointment; and
  - Use of a special followup protocol (RAP sheet) to guide postpartum counseling

II. Context

A. Community and Participant Characteristics

The South Health Center is a public health clinic of the Los Angeles County Department of Health Services. It is located in the Watts area of Los Angeles, one of the poorest urban areas west of the Mississippi River.

The WIC program at the South Health Center, one of seven service sites in south central Los Angeles operated by the REI WIC Program, serves a caseload of 2,500-3,000 monthly. In the month of September 1987, 2,706 participants were served, of whom 890 were women, 1,286 were infants, and 530 were children. Of the 419 infants who were certified during July, August, and September of 1987, 256 (61 percent) were Black, 161 (39 percent) were Hispanic, and 2 were white.

The site serves all six WIC priorities, except that no priority V children are enrolled after 18 months of age. The maximum allowable family income is approximately 185 percent of poverty, based on guidelines established by the State of California. According to staff estimates, as many as 60 percent of the participants receive public assistance.

The service-site staff believe that the main barriers to breastfeeding are the perception of the participants that breastfeeding is inconvenient and that it will prevent them from returning to school, managing other children, or engaging in other desired activities. Participant responses generally agreed with the staff assessment and also included a number of other beliefs that discourage breastfeeding. For example, Hispanic participants mentioned that mothers who get angry should not breastfeed and insufficient milk is caused by the mother overexposing her body to the air while dressing. Black participants commented that breastfeeding will cause a decrease in breast size and that mothers who use street drugs should not breastfeed because the drug's presence will be noted when blood tests are performed on the infant.

B. Local Agency and Service Site Characteristics

The Research and Education Institute, Inc. (REI) is a private nonprofit medical research and education institute affiliated with the Harbor UCLA Medical Center. One of its many contracts is to provide WIC services to approximately 26,000 participants in south central Los Angeles. It has had this contract since 1985. However, program continuity goes back another 10 years, to 1975. The WIC program and most of its staff were with the prior agencies and moved with the contract to REI. The change in sponsorship in 1985 did not significantly affect the program; essentially the same staff continued to provide the same services at the same sites. The major role of REI is to administer the contract and provide financial oversight.

Although the population served at the South Health Center WIC site is mainly Black, the population served by the REI WIC agency as a whole is mainly Hispanic (75 percent Hispanic and 25 percent Black).

Staff. The WIC program director, who has been with the program since 1976, has overall responsibility for the administration of the agency's program. He is assisted by a deputy program director, a nutritionist, whose main function is to serve as director of nutritional services, and by two area supervisors who provide support and supervision for the staff at the seven sites. In addition, two local agency high-risk nutrition counselors provide individual counseling for participants at several of the service sites (but not at the South Health Center site).

Among the central office staff, the deputy director and one of the area supervisors have been particularly active in developing policies and special projects relating to the promotion of breastfeeding. Both are nutritionists with master's degrees in public health, and both have extensive training in breastfeeding promotion and lactation management. During the mid-1980s they completed together the Lactation Educator Program offered by UCLA's extension school.

The staffing pattern at each of the service sites is similar. A site supervisor, usually a nutritionist or health educator, is responsible for the day-to-day operation of the site. As her time allows, she also does high-risk and regular counseling. However, most of the nutrition education and counseling, as well as the teaching of classes, are done at the sites by nutrition assistants. Most often the nutrition assistants are paraprofessionals who have worked for at least a year within the local agency as WIC clerks. Sometimes, though, the nutrition assistant positions may be used as entry level positions for individuals with health-related backgrounds.

Each site also has two or more WIC clerks who are responsible for scheduling, voucher pickup, and other routine tasks. The local agency recruits for the clerk position from the community, and many of the clerks are former WIC participants.

Because of the predominance of Hispanic participants, there is a general policy that all clerks and nutrition assistants must be conversational in both English and Spanish so that they can provide services without assistance to both English-speaking and Hispanic participants. This policy is applied to the South Health Center site as well, even though the site is primarily Black. The agency's rationale is that an English-only clerk or nutrition assistant could not provide services to the sizable Hispanic population at the South Health Center WIC Program, and also could not be transferred as easily from site to site as the bilingual paraprofessionals.

The program prefers that professionals be bilingual as well. However, because recruitment of bilingual professionals is difficult, the program has chosen to teach basic nutrition information to competent bilingual paraprofessionals. The extensive use of paraprofessionals also provides certain cost advantages since their salaries are less than those of professional staff.

Funding. In fiscal year 1988 REI WIC will receive $1.63 million to provide services to approximately 25,631 participants monthly at seven service sites. REI WIC receives no supplemental funding. In-kind contributions include donated space at two county health facilities, and having WIC-required hematological work done by the participants' own care providers.

The South Health Center is a publicly funded community health facility. The health center provides a room for the WIC program to occupy and prenatal and pediatric referrals to the program. Staff estimate that about 50 percent of the participants receive their health care at the center. The other participants receive their health care from private providers or at Martin Luther King Jr. General Hospital.

The single room provided by the health center measures approximately 20 by 30 feet. Within this space there are three desks at which the nutrition assistants and the site supervisor conduct counseling and certification sessions, two desks for the clerks to give out vouchers and schedule appointments, and four rows of four chairs each for participants to sit in during classes and while they are waiting for services. The site also uses some chairs in a hallway adjacent to the entrance door to the WIC clinic, where participants wait until a group appointment time. Then, as a group, they enter and the doors are closed again until the next group appointment a half-hour or hour later. (Participants can exit through another doorway.)

The site makes use of its limited space by developing working styles that allow nutrition education, counseling, and voucher preparation to all occur at the same time. Visible throughout the room are numerous bulletin boards and displays with nutrition education materials, especially breastfeeding posters in English and Spanish. There is, however, very little privacy for counseling. At most, what separates a participant being counseled from other participants a few feet away are movable dividers which do little except screen away visual contact.

The current site supervisor at the South Health Center WIC Program is a health educator who, prior to coming to the site, had several years experience as a nutrition assistant and worked at the program's administrative office. She has received training in breastfeeding promotion through a number of workshops and has recently breastfed her own infant. Working with the site supervisor are two nutrition assistants and two clerks.

The two nutrition assistants are high school graduates and both have extensive experience working with the REI WIC program; one for 4 years and one for 7. As will be described in some detail in a following section, both have been specially trained to carry out breastfeeding promotion activities.

The two clerks are high school graduates from the community. At present they have only minimal counseling responsibilities, such as answering very simple questions which participants might ask during a telephone call for an appointment change. Both remarked, however, that they have learned much about breastfeeding promotion while working at the WIC program and would like to do more to influence participants to breastfeed.

D. Community Efforts Related to Breastfeeding

According to program staff, there are serious problems in Los Angeles County with access to and availability of prenatal care, which in turn affects enrollments in WIC. The county health care systems has a higher demand for services than it has staff to handle, and there are reports that patients sometimes wait 4-10 weeks for an initial prenatal appointment. There are also fewer private health providers in the area than in the past, because of physician withdrawal from the Medicaid Program.

Due to delays they encounter receiving prenatal care, some pregnant women enroll in WIC late in their pregnancies. Current Federal WIC regulations do not allow enrollment without a blood test which is obtained from their prenatal care provider.

In-hospital support of breastfeeding is also not as supportive as it might be for the South Health Center WIC participants. All of the interviewed WIC staff (both at the local agency and the service site) reported that practices at local hospitals, such as restricting mothers' contact with infants, giving formula bottles almost automatically, and giving breastfeeding counseling low priority, tend to discourage breastfeeding. This frequently reflects hospital nursing staff shortages.

III. Intervention

A. Service Provision

During the decade between 1975 and 1985, the caseload of the WIC local agency grew greatly, from approximately 5,000 participants to approximately 25,000. The central administrative struggle during these years was to keep up with the necessary changes and successfully provide basic services. In the early 1980s, local agency staff directed their attention to improving the quality of services provided. One area that was felt to be in need of upgrading was the promotion of breastfeeding.

In order to effect positive changes, a breastfeeding committee was established in August 1985. The committee was composed of an area supervisor with considerable training in breastfeeding promotion, plus five nutritionists and health educators from the service sites. One of the first tasks of the committee was to develop a breastfeeding class curriculum and then establish procedures so that all prenatal participants would receive it as part of their prenatal nutrition education.

In addition to improving prenatal education, the committee members also thought that the WIC service sites should do more during the immediate postpartum period. They believed that many participants began breastfeeding and then soon stopped due to difficulties encountered. The intervention strategy the committee eventually developed was to provide postpartum support though a WIC-initiated telephone contact during the immediate postpartum period.

The local agency agreed to try the telephone contact strategy, along with a number of minor adjustments to agency procedures relating to breastfeeding promotion, as a pilot project. If the changes proved successful, they would be incorporated throughout the agency. The South Health Center WIC program was chosen as the demonstration site because it was a small site and the staff there were interested in participating. The site supervisor, a bilingual health educator, was an active member of the breastfeeding committee.

Specific protocols and forms were developed describing how each contact should be made and what the content of the contact should be. The staff at the South Health Center WIC program were trained, especially the nutrition assistants who would function as breastfeeding counselors. A key resource was the breastfeeding training manual for participant-counselors developed by the County of Riverside WIC Program, CA.

The pilot project at the South Health Center began working with participants in September 1986. It is described below along with other breastfeeding activities observed at the site.

B. Project Processes

Prenatal Contact. The certification appointment consists of a class and an individual interview with either a nutrition assistant or the site supervisor. The main focus of the class is to provide new participants with basic information concerning how the WIC program operates. The classes are conducted alternately by the nutrition assistants. Breastfeeding is briefly discussed through statements such as, "We recommend that you breastfeed. It is healthier for your baby."

The individual interview consists primarily of paperwork and diet assessment. Prenatal participants are asked if they intend to breastfeed or bottle-feed, or whether they are undecided. The responses are noted in the participant's file and also on a special form developed for the pilot project called the RAP sheet.

Extended discussions are not possible during the certification because of the sheer numbers. Observers noted that approximately 15 women were certified each hour, including the time spent in the group orientation.

Ten- to fifteen-minute nutrition education classes are part of each voucher pickup. The participants enter, are seated in the classroom section of the room, listen to their class while clerks process their vouchers, and then sign for their vouchers and leave. Scheduling is done so that each prenatal participant will receive a voucher pickup appointment that coincides with the breastfeeding advantages class.

Several breastfeeding advantages classes were observed. Each started with an approximately 5-minute slide show developed by the County of Riverside WIC Program, CA. The slide show is a cartoon parody of a TV advertisement for an "all new baby food." An accompanying script was read by the nutrition assistant leading the class. Scripts in both English and Spanish are available. Judging from the participants' laughter, the slide shows's probreastfeeding message was pleasantly received. After the slide show, the

nutrition assistant led a short discussion on such topics as breast preparation and milk storage. From beginning to end, the class lasted about 12 minutes.

Prenatal participants interested in breastfeeding are also scheduled for a voucher-pickup appointment to coincide with a breastfeeding tips and positioning class. The class is similar to the breastfeeding advantages class; i.e., it is a slide show with an accompanying bilingual script. It was developed by the local agency breastfeeding committee and combines Ross Laboratories-produced slides with slides of women breastfeeding taken by local agency staff. During the presentation, the nutrition assistant also uses a specially purchased doll to demonstrate positioning. The doll is not only the same size as an infant, but is also correctly weighted. No tips and positioning classes were scheduled for participants during the case study visit; however, one of the nutrition assistants conducted a mock class for the benefit of the case study observers. It lasted about 20 minutes and was thorough in its coverage of breastfeeding techniques.

The pilot project concentrates its efforts on women who are undecided about their infant feeding plans and women who plan to breastfeed but have not successfully breastfed before. Women who fall into either category are identified as such during the certification interview. Their WIC charts are marked with a star for ready identification, and a RAP sheet (see exhibit 26) is begun and placed in a tickler file according to the expected delivery date.

The phone calls are mainly the responsibility of the nutrition assistants. The first call is attempted 1 to 2 weeks prior to the due date. If the woman has not yet delivered, calls are repeated each week. The telephone contact is guided by and documented in the RAP sheet, which takes its name from its three main parts: Relevant Information, Assessment, and Plan.

The relevant information section is a series of 14 questions designed to document breastfeeding practices and elicit any concerns or questions the mother might have. The mother, for example, might indicate, that the baby is sucking vigorously and that she has developed sore nipples.

In the assessment section the nutrition assistant evaluates what she has heard and notes what she believes might be the cause or causes of perceived difficulties. For example, the assessment might be that the mother is feeding every 3 hours rather than on demand.

In the plan section of the RAP sheet the nutrition assistant notes the specific instructions or suggestions she has made to the mother to resolve difficulties. For example, the counselor might suggest that the mother is letting the infant get too hungry and she should feed the baby more frequently on demand.

The nutrition assistants making the calls have instructions to refer any problems that are beyond their training, such as the advisability of breastfeeding while taking certain medicine, to the site supervisor. The site supervisor may in turn contact an area supervisor with lactation management training.

The nutrition assistants together spend about 2 hours a week making early postpartum phone calls to women in the tickler file. Usually, the total number of women who need to be contacted is about 18 per month (based on records for October-December 1987), but the total number of phone calls is many more. The site supervisor estimates that it takes about three calls to reach participants. Often they are not at home, or they have moved and must be called at a different number. The pilot project protocols require that when there is an apparently valid telephone number for a participant, at least five attempts to establish telephone contact must be made. Despite the program's efforts, however, many participants are not successfully reached. Sometimes the telephone number on record is inaccurate or disconnected, and sometimes the mothers appear never to be at home during working hours.

If telephone contact is made and the mother is breastfeeding, the RAP sheet is placed in the mother's WIC file so that the staff person conducting the postpartum certification interview will be aware of what information was passed during the phone call. If the mother never breastfed or has already quit, the RAP sheet is put in an inactive file, which will be used to analyze the project's success.

Postpartum Contact. Postpartum certification for the mother and the infant generally occurs 2 to 3 weeks after the delivery, but may occur as early as within the first few days. Early postpartum certification is promoted through the site's scheduling system. Prenatal participants usually come to the center on a set day each month to pick up their vouchers. If the delivery is on time, the mother, if she is able, comes to the center when the infant is from a few days old to just under 1 month. If the delivery has not yet occurred by the scheduled appointment date, the mother comes in, picks up prenatal vouchers, and establishes a postpartum certification appointment the next month.

The format of the postpartum certification is similar to that of the prenatal enrollment in that there is a short class followed by an individual interview. Staff conducting the certification use the RAP sheet to guide the counseling sessions of women who are breastfeeding. As in the telephone contact, the counselor asks a series of questions to determine the current situation, makes an assessment regarding possible difficulties and, if necessary, makes suggestions on how the difficulty might be overcome (or makes a referral for more expert assistance). The postpartum certification sessions are also similar to prenatal enrollments in that they are quite short; usually less than 15 minutes is spent with a nutrition assistant.

Formula Company Policies. The policy of the local agency is not to allow formula company representatives to visit the South Health Center WIC program or any other of the sites. However, representatives are allowed to come to the central office. The local agency accepts free formula offered by the representatives in order to have some on hand to give out on an emergency basis, but makes very little use of the formula company educational materials. According to the deputy program director, the reason the agency chooses not to use the formula-company materials is that they usually contain a very powerful subliminal message which undermines breastfeeding. Several attractive formula-company-supplied breastfeeding posters were observed at the South Health Center WIC program, all of which had been altered to remove product advertising.

Educational Materials. The South Health Center WIC Program, as well as the other sites in the local agency, primarily depends on two breastfeeding brochures printed and distributed by the State WIC program. "Yes, I Want to Breastfeed" is a one-page, double-sided flier developed by the Tulare County WIC Program, CA. It uses line drawings and text to present breastfeeding basics. Stylistically, the "Breastfeeding" brochure is similar, but because it is somewhat longer (12 pages), it provides more detailed information on preparation, technique, and problem solving.

The local agency is also in the process of producing a set of 12 one-page fliers, each addressing a particular breastfeeding topic, such as sore nipples or fussy baby. The fliers will be printed with an English version on one side and a Spanish version on the other. The agency's intention is to produce breastfeeding promotion materials which are both more focused and geared to a lower reading level than the State-produced materials.

IV. Outcomes

Available statistics show that a relatively high number of participants at the South Health Center WIC Program do breastfeed. For the period July to September 1987, 257 infants were enrolled whose mothers had been prenatal WIC participants. Of this group, 41 percent were breastfed at least once and 18 percent were enrolled as partially or exclusively breastfed (that is, received less than 12 ounces of formula per day). The rates differed significantly based on the ethnic backgrounds of the participants. Of the Black infants, who comprised 54 percent of the group of infants, 29 percent were breastfed at least once and 13 percent were enrolled as partially or exclusively breastfed. In contrast, the Hispanic infants, who comprised 46 percent of the group, 55 percent were breastfed at least once and 25 percent were enrolled as partially or exclusively breastfed.

Local agency and site staff uniformly believe that the changes introduced by the breastfeeding committee have positively influenced breastfeeding. They believe the newly designed breastfeeding classes and the postpartum followup phone calls offer more practical assistance and support than was previously available.

V. Summary

The South Health Center WIC site is one of seven sites operated by the Research and Education Institute Inc. WIC Program. One professional (a health educator), two paraprofessionals and two clerks provide basic WIC services for a caseload that fluctuates between 2,500-3,000 participants per month. Located in the Watts area of Los Angeles, the participant population is 61 percent Black and 39 percent Hispanic. The service site occupies space in a public health clinic and there is an effective referral process.

Since 1986, a special breastfeeding pilot project developed by the local agency's breastfeeding committee has been implemented at the site which, if successful, will later be implemented at the six other local agency sites. The core of the pilot project is the RAP sheet, a special form, and associated procedures which lead the interviewer to elicit relevant

breastfeeding information, assess the current situation, and develop a plan. The RAP sheet is used both for early postpartum telephone calls and as part of the postpartum certification process. Other noteworthy practices at the site include two breastfeeding education classes, an appointment system which facilitates early postpartum certification, the development of culturally appropriate educational materials, and a stringent policy limiting contact with infant formula company representatives and use of their educational materials.

Rates of breastfeeding incidence and breastfeeding at certification were relatively high for an inner city minority population (41 percent and 18 percent respectively). Breastfeeding rates for incidence and certification were higher among the Hispanic participants than among the Black.

EXHIBIT 26

RAP SHEET

Courtesy of Research and Educational Institute WIC, CA

LAST NAME FIRST NAME EDC DATE PHONE #

Date_____ Baby's Name_____

BF Counselor_____ DOB_____

WIC ID#_____ RAP SHEET

Relevant Information:

1. Type of delivery: Vaginal C-Section
_____
2. Is mom currently BF? Yes No
3. If no, why?
Date stopped_____
Reason:_____
4. Does mom have questions/concerns about BF? (State in Mom's words)
_____
_____
_____
_____
5. How many times BF in 24 hours?
_____
6. How long is each feeding?
_____
7. Is mom using both breasts? Yes No
_____
8. Is mom burping baby at least once during feeding? Yes No
_____
9. Use of supplements, specify type and quantity:
water:_____
Formula:_____
Solids:_____
Other:_____
10. Number of wet diapers in 24 hours?_____
11. Is there anyone who is encouraging you to BF?
_____
12. Any medications used by mom or baby?
No Yes Specify_____
If yes, REFER TO NUTRITIONIST
13. Any medical problems in mom or baby?
No Yes Specify:_____
If yes, REFER TO NUTRITIONIST
14. How long does mom plan to BF?_____

Date _____

Length of BF _____

Reason quit _____

Assessment: Given the relevant information, what do you think is the problem?

_____
_____
_____
_____
_____
_____

Plan: Instructions given to mother. (please note page # of lactation manual where appropriate)

_____
_____
_____
_____
_____
_____

Scheduled for follow-up?_____ Date_____phone call or WIC visit

Referral given to: _____

The Breastfeeding Support Program of the Maternal and Child Health Migrant Health Project
University of North Carolina, Chapel Hill

I. Overview

- **Local Agency Name:** Tri-County Community Health Center
- **Type of Local Agency:** Maternal and child health project sponsored University of North Carolina School of Public Health
- **Service Site Name:** Tri-County Community Health Center
- **Location:** Rural farm area, lacking public transportation
- **Service Site Staff:** Project nutritionist (Funded through Special Project of Regional and National Significance - SPRANS)
  Project coordinator (Funded through SPRANS)
  WIC nutritionist
  WIC nutrition clerk
- **Funding Sources:** WIC funds;
  SPRANS grant from the U.S. Department of Health and Human Services (DHHS);
  Professional and clerical time provided by WIC as an in-kind contribution
- **Caseload:** Summer caseload is approximately 400 participants. (Caseload varies with growing season - higher in the summer, lower in the winter) (Priorities I-VI)
- **Food Distribution Systems:** Retail purchase
- **Ethnicity:** Hispanic (Mexican-American) - 60 percent
  Black - 24 percent
  White, Haitian - 16 percent
- **WIC Service Location:** WIC program located in a full service clinic
- **Outside Services Integrated with WIC:** Prenatal and pediatric services (Federally funded through migrant clinic)

- Key Breastfeeding Promotion Activities:

  - Prenatal classes focusing on mother-related benefits of breastfeeding;

  - Incentive offer of layette to increase class attendance; and

  - Hospital support through bilingual materials, a bilingual flip chart, and a patient identification card.

II. Context

A. Community and Participant Characteristics

The WIC caseload at the Tri-County Community Health Center in Newton Grove, NC, fluctuates due to an influx of migrant workers during the growing season, with a total of 400 participants during the summer, including 85 prenatal and 170 postpartum women. The WIC program's documents do not reflect the number of breastfeeding women. Sixty percent of the prenatal population are Hispanic (Mexican-American) and 24 percent are Black. The remainder are white and Haitian. Most of the Hispanic women (96 percent) and nearly half of the Black women (44 percent) are migrant farm workers who come to the area from Florida for 6 to 8 months of the year and may return. Because they are part of this migrant stream, prenatal health care is fragmented.

Sixty-eight percent of the prenatal are employed, 81 percent of these in the fields. A 1979 study (cited in "Extension of Improving the Health of Migrant Mothers and Children," Department of Maternal and Child Health, University of North Carolina) reported that the average family income for this population was 65 percent below the poverty level. Wages are based upon the number of units picked, and vary among crops. A strong male worker may earn up to $250 per 6-day week, but a woman may earn as little as $100-$120 for the same period.

Living conditions are poor. Migrants frequently live in old farmhouses, usually without telephones, shared by several families or groups of individuals. The housing often lacks indoor plumbing, windowscreens, or a safe water source (posing potential problems for bottle-feeding). Available refrigeration, other food storage and cooking facilities are often shared. The housing is dispersed, and no public transportation is available. Women with clinic appointments depend upon their husbands, boyfriends, or carpools for transportation.

Among the migrant women, 38 percent are single mothers and 19 percent are under 19. Many Hispanic women cannot read or communicate in English. A number of common beliefs and attitudes sometimes serve as deterrents to breastfeeding. For instance, women believe that if the mother becomes hot and sweaty -- as any field-worker does from a day's work -- the milk will spoil in the breast. The commonly held belief among Mexicans that spicy foods spoil the breast milk may also dissuade a woman from breastfeeding. In addition, some women believe that a mother's anger is harmful to the baby, and on finding themselves with such feelings may be disinclined to breastfeed. Most women are reluctant to breastfeed because of the need to return to work, concern about having to nurse in public, and/or a desire to use contraceptives.

Project and hospital staff described Hispanic women as being relatively passive when dealing with the health system, which may serve as a barrier to breastfeeding in certain situations. For example, during her hospital stay a Hispanic nursing mother may not assert herself sufficiently to overcome hospital protocols that discourage breastfeeding. Indeed, this may be difficult for women of all ethnicities.

B. Local Agency and Service Site Characteristics

The health center, located in rural North Carolina, offers comprehensive medical and social services, including prenatal and well-baby care, and includes a WIC program. The size of the clinic staff varies by season with the migrant caseload. During the growing season, between April and November, the migrant population increases to over 35,000 in the three counties served by the clinic. The clinic has one full-time nutritionist who divides her time between administering the WIC program and providing nutrition services for chronic disease patients.

The clinic nutritionist has a bachelor of science degree in nutrition and a master's in education, but speaks no Spanish. The nutrition clerk, a Mexican-American, is a former migrant worker. Historically, staff turnover has been high (41 percent annually), and the recruitment of trained Spanish-speaking staff is particularly difficult.

For participants who only speak Spanish, the clerk helps with the counseling. The nutritionist informally trains the clerk in breastfeeding and other nutritional topics in order to enable her to answer participants' questions that arise during voucher pickup.

The WIC facility consists of a small clerical office, an office shared by the WIC and the MCH project nutritionists, and a larger room for classes. Because the health center is crowded, these clinical areas are also used for storage. Thus, to the dismay of both nutritionists, stacks of formula cases are visible to participants.

The Migrant Health Project. The Maternal and Child Health (MCH) Migrant Health Project was administered by the Department of Maternal and Child Health, School of Public Health at the University of North Carolina at Chapel Hill between April 1985 and September 1987. The overall goal of the project was to improve the health and nutritional status of female migrant workers receiving maternity care, and children aged 0-5 years receiving child health services at Tri-County Community Health Center. Health improvements were to be achieved in part by improving services at the center and improving tracking and referral mechanisms between it and other centers in Florida. Specific goals were to assess the health and nutritional status of this migrant population and to institute and evaluate comprehensive interventions for identified health problems. It is within this context that the breastfeeding support program was developed.

Enrollment data for prenatal WIC participants in 1984 indicate that 69 percent of the maternity patients enrolling in WIC expressed a preference for bottle-feeding. Earlier studies on this population had suggested a high incidence of diarrhea among the infants. The objective of the breastfeeding project was to increase the number of women who breastfed at hospital discharge, as discussed below under "Intervention." This objective was chosen because of the difficulty in obtaining followup data on migrants.

As mentioned previously, the MCH Migrant Health Project was based in the community health center, one of whose services is WIC. The breastfeeding component was implemented through the WIC program, in which virtually all

maternity patients participated. While the concept, funding, and administration of the migrant project were independent of the health center and the WIC program, a goal was to integrate it into routine health center operations.

Staff. The overall health project was coordinated by a nurse, with the breastfeeding component primarily designed and implemented by the MCH project nutritionist. Both have master's degrees in public health. In addition to 5 hours of workshop training in breastfeeding, the nutritionist has gained practical knowledge by nursing her five children. Although the project coordinator had no special training or experience in breastfeeding, she felt that breastfeeding was vitally important, and thus supported breastfeeding promotion as part of her management of the project.

Funding. The entire MCH Migrant Health Project was funded by a Title V MCH grant for Special Projects of Regional and National Significance (SPRANS) from the U.S. Department of Health and Human Services. The costs associated with the breastfeeding intervention are minimal, and are discussed later.

C. Community Efforts Related to Breastfeeding

The Hospital. Clinic patients deliver at three different hospitals. Project staff report that hospital staff may support breastfeeding, but most have little time for breastfeeding education and are unable to communicate with patients who speak only Spanish. Nurses will generally respond to mothers' requests for their infants, but maternal access to infants is otherwise restricted to scheduled feeding times. Project staff also report that infant formula automatically accompanies the babies at feeding times when they are brought out to mothers. In at least one hospital, breastfeeding mothers are given "wipettes," and are instructed to clean their breasts prior to each breastfeeding -- an unnecessary practice which may reinforce mothers' notions that they are too dirty to breastfeed.

Other Factors. Two other factors particular to the migrant community may negatively affect the practice of breastfeeding. An occupational risk of agricultural fieldwork is exposure to pesticides. Of particular concern to the project nutritionist is the prevailing lack of information about levels of pesticides in breast milk, and the automatic assumption made by some health providers that breastfeeding is contraindicated for this population.

An unexpected negative influence has resulted from the Migrant Head Start Program, which provides childcare to infants. Since Head Start accepts infants at 6 weeks the mother is then able to return to work and may choose to do that rather than stay at home with her infant. As migrants, these women do not have female relatives in the area to provide support for breastfeeding.

III. Intervention

A. Service Provision

The goal of the breastfeeding support program was to increase the number of women who breastfed at hospital discharge by creating positive attitudes towards breastfeeding during pregnancy. This was done through a nutrition

education contact, generally a class, at the WIC appointment following program enrollment. To increase participation, incentives were offered. Another goal was to initiate a working relationship with the delivering hospitals and to assist them to provide breastfeeding support for the migrant women by developing bilingual materials.

B. Project Processes

Prenatal Contact. The design of the prenatal classes carefully considered the needs of the clinic's migrant population. For example, based upon discussions with the migrant women, the project nutritionist learned that participants generally perceived barriers to breastfeeding related to the their own needs and less often to the infant's needs. Therefore, the class material expressed benefits of breastfeeding directly related to the infant's well-being in terms of mother-related benefits. Rather than an explanation that breastfeeding was healthier for babies, the nutritionist or counselor contrasted a healthy baby to the mother's stress and inconvenience in caring for a sick baby. In addition, certain aspects of breastfeeding generally perceived as disadvantages were expressed as mother-related advantages. For example, the need for frequent feeding was related to easier digestion, which, together with active sucking, was expressed as less spitting up, which translated to less laundry for the mother.

Classes were generally scheduled on an as-needed basis and might consist of 2 to 10 participants. Individual counseling was used if too few women were available for a class. One observed class began with a 5-minute skit between two new mothers (in this case, portrayed by the project nutritionist and the WIC nutritionist, although others could be used for the skit). The script was written to address concerns of the participants, contrasting the experiences of a breastfeeding woman with those of a bottle-feeding woman. The text of the skit is included in exhibit 27. The leader stimulated participation by having participants wear name tags, and by frequently calling on them by name.

The process was not overtly didactic, but rather gave the appearance of a sharing group where women were called upon to contribute in whatever way they could. An example of this technique is as follows:

> Nutritionist: "When a baby spits up formula it smells awful, doesn't it, Patricia?"
>
> Patricia, a pregnant woman who bottlefed her other children, nodded her head in agreement.

It was evident to the observer that she was drawn into the dynamic of the group. The nutritionist then continued, using simple language to explain some of the differences between the digestion of breast milk and infant formula.

The observed class was about 1 hour long, and had 10 participants. Several important issues were either raised directly by participants, or actively responded to when broached by the leader. Practical solutions were given to problems raised by the group or in areas introduced by the leader and known to be of concern. A woman who had successfully breastfed her child was called upon several times to share her experiences. The only materials were two homemade cardboard cut-out baby dolls which were used as props for the skit.

Incentives. Working schedules, lack of transportation, and low priority given to prenatal care, all contributed to poor compliance with WIC and other clinic appointments. To overcome these barriers and to improve attendance, a free layette was offered as an inducement, since migrant women often arrived at the hospital for delivery without even minimal clothing for their infants. Drawing upon contacts with churches and church organizations involved with migrant ministries, a list of suggested items was circulated, and donated layettes were collected. The offering was advertised on a homemade poster outside the WIC clerical office. Two women interviewed prior to the prenatal class indicated that they had been drawn by the offer.

Hospital Support Through Bilingual Materials. The breastfeeding support program also developed a bilingual flip chart and an identification card after a survey of hospital nursing staff confirmed that the inability to communicate posed a barrier to supporting breastfeeding with migrant patients. Because the project nutritionist involved the nursing staff in the assessment process, acceptable and useful materials were produced and the trust of the staff was gained.

Among the materials developed was a small identification card, given to migrant women intending to breastfeed. The card alerted hospital staff of the woman's inability to speak English, as well as her desire to breastfeed. The card also gave the name and phone number of a support person, often the project nutritionist. The simple and colorful cards had a drawing of a mother nursing, and were printed with blue ink on brightly colored card stock. The cost for producing several hundred cards was under $5.

Other materials were sets of miniature flip charts constructed on 8 by 10 cards which contain messages to help mothers communicate some of their basic needs to nurses. The flip charts were simple and constructing them required more time than money. A student volunteer provided the drawings. Construction time was estimated at 2 hours per set. Materials included poster board, clear contact paper, glue, and binding rings.

Flip charts were distributed to the three hospitals where mothers deliver. Each card had a simple drawing, and a bilingual message, such as "Please bring my baby;" "I am thirsty;" "I have pain;" etc. The value of the flip charts may lie as much in communicating to mothers that it was acceptable to speak up and make their needs known as in the content of the messages themselves.

During a hospital visit to review the use of the materials, a maternity nurse experienced with the charts indicated that women who used them tended to be less passive. Other nurses felt that the charts improved communication, thus enabling them to work more effectively with the women. Nurses at one hospital had improved the charts to better suit their needs, by inserting a list of specific options under one of the general statements. For example, in addition to indicating thirst, the woman was given the opportunity to express a preference for water, juice or milk. Other suggested improvements include making messages more specific; writing Spanish phrases phonetically so nurses can communicate with illiterate patients; and field testing the drawings so they are more communicative.

IV. Outcomes

According to nurses at one hospital, the bilingual flipchart helped nurses and Hispanic mothers more easily communicate, thereby enabling mothers to have their babies brought to them for breastfeeding. Interest in or neutrality towards breastfeeding at the first WIC encounter remained at a constant level (about 31 percent) prior to and at points during the project in 1984, 1985, and 1986. Information on infant feeding was obtained on 64 of 101 women who participated in a class or had counseling on breastfeeding. Of these, 52 percent (33) were breastfeeding at the time of hospital discharge. Sixty percent (24) of the Mexican American and 44 percent (8) of the Black American women were breastfeeding.

V. Summary

Among a primarily Mexican-American migrant population whose living conditions and ideas about nursing and breast milk conspired to impede the practice of breastfeeding, many more women breastfed at hospital discharge than had expressed interest at the start of their prenatal care.

This breastfeeding intervention was implemented at the Tri-County Community Health Center, a federally funded migrant clinic located in rural North Carolina. It was a component of a larger migrant health project funded by a SPRANS grant from the U.S. Department of Health and Human Services, and was implemented through the clinic's WIC program and the county hospitals. The interventions were conceived and developed by the project nutritionist, working under the direction of a project coordinator. The cooperating WIC staff consisted of a nutritionist and a clerk.

Donated layettes were used as incentives for class attendance. Classes focused on unveiling common myths about breastfeeding and providing practical suggestions and pertinent background knowledge. A number of techniques were used to encourage group participation, including use of a skit which touched upon issues relevant to the mothers' experiences, and name tags, which enabled the leader to address each participant by name.

Bilingual flip charts and identification cards developed for the hospital stay not only facilitated communication between nursing staff and mothers, but encouraged staff because they felt more effective, and may have encouraged migrant mothers to be more assertive about their needs.

The cost of these interventions is largely limited to basic arts and crafts materials and the time to learn about the attitudes and concerns of the client population.

EXHIBIT 27

BREASTFEEDING SKIT

PLACE: Clinic Waiting Room

CHARACTERS: Two new mothers, Suzanna and Patty and their babies

SCENE I

SUZANNA: Patty! You had your baby! A little girl? How did it go?

PATTY: The delivery was easy. Yes, a girl.

SUZANNA: Have you been waiting long? This is your first baby, you'll find out about coming to the clinic a lot. I have two older children so I'm here real often. Did you remember to bring extra formula for the baby? You might need some if you have to wait long.

PATTY: No, I don't need formula. I'm breastfeeding my baby.

SUZANNA: What? Why would you want to do that? Isn't it a lot of trouble?...and you are young so you probably won't have enough milk.

PATTY: It is no trouble and much better for my baby. I don't have to fix bottles in the middle of the night and the nutritionist told me that the more often I feed the baby the more milk I will have. I eat the same foods that I ate when I was pregnant and try to drink extra milk, juice and water. All babies cry sometimes but she seems happy most of the time.

SUZANNA: I don't want to be bothered to spend the time and my husband wouldn't like someone to see me doing that.

PATTY: Nursing does take longer than a bottle, but I can rest then and the doctor said that sucking longer is good for the baby. I can use a light blanket to cover the baby while I'm feeding her and no one can see anything. If I want more privacy away from home I can sit in the car and feed her. My husband didn't like the idea at first but now when he sees how happy and healthy the baby is he is real proud of me.

SUZANNA: No, I couldn't do it...I'm too nervous...the nurse is calling me...Goodbye

SCENE II ONE MONTH LATER

PATTY: Hello, Suzanna, are you bringing your baby in for vaccinations too?

SUZANNA: No, my baby is sick. Diarrhea...This is the second time this week I've had to come to the clinic. Joey has an ear infection too. He cries so much! How is your baby? You're not still breastfeeding, are you?

PATTY: Yes I am. I'm so sorry that your baby has been so sick. My little girl has been fine. We are here for the well-child clinic. She has gained 2 pounds. She is so clean and easy to care for.

SUZANNA: Joey is so nasty. I have to keep buying extra diapers. He has diarrhea or spits up formula so I have to keep changing all his clothes. I hope I get through here in time to do my laundry.

PATTY: You have had a hard time. You must be tired by all the trouble of getting up with a sick baby and coming to the clinic.

SUZANNA: Yes, Patty. Now I think maybe you were right to breastfeed your baby. It would have been better for my baby and better for me. I am expecting another baby and I will try to avoid all these problems next time by breastfeeding.

PATTY: Good for you, I know that you can do it. I will be glad to help you if you have any questions.

Columbia Health Center
Seattle, Washington
The Breastfeeding Counselor Model

I. Overview

- Local Agency Name: Breastfeeding Promotion Project/Seattle-King County Department of Public Health
- Type of Local Agency: Health department
- Service Site Name: Columbia Health Center (one of two sites)
- Location: Urban area with a population of over 1 million
- Service Site Staff: Nutritionist/coordinator (covers two sites)
  Public health nurse
  Nurse practitioner (covers two sites)
- Funding Sources: Special project of Regional and National Significance (SPRANS) grant from the U.S. Department of Health and Human Services (DHHS);
  $126,085 for each of 3 years;
  Staff and resource contributions from Washington State Department of Health Services ($8,000 first year, $9,000 second year, $9,000 third year), and Seattle-King County Department of Public Health, ($40,000 per year as in-kind contributions)
- Caseload: 1,050 (at one WIC site) (Priorities I-III)
- Food Distribution System: Retail purchase
- Ethnicity: Black - 53 percent
  Asian - 31 percent
  White - 11 percent
  Hispanic - 3 percent
  Native American - 1 percent
  Unknown - 1 percent
- WIC Service Location: Full service clinic
- Outside Services Integrated with WIC: Prenatal, pediatric and public health nursing services (county health department)
- Key Breastfeeding Promotion Activities:
  - Individual counseling and teaching;
  - Prenatal breastfeeding classes;
  - Internal postpartum followup on site, by telephone and through home visits;

- Expert clinical management of breastfeeding problems;

- Provision of breastfeeding promotion and support training through short inservice courses to the health center's obstetrical nursing, visiting public health nursing and WIC staff; and

- Development of effective breastfeeding education materials.

II. Context

A. Community and Participant Characteristics

The Breastfeeding Promotion Project chose two health center sites in which to develop its service delivery model. Both were sites that historically had relatively low rates of breastfeeding, but the sites differed with regard to the ethnic and racial makeup of the participants. As shown in exhibit 28, the Columbia Health Center WIC program serves primarily Black participants and members of other minority groups.

The Columbia Health Center's prenatal WIC population is a medically high-risk population. Of the pregnant women enrolled in WIC in 1985, 49 percent had a history of high-risk pregnancies, 48 percent had two pregnancies within 2 years, and 25 percent were classified as adolescents.

According to WIC program staff, the typical WIC participant is Black, on welfare, and not married. Also, typically the WIC participants do not receive medical care at the center. Staff estimate that 75 to 85 percent receive prenatal care elsewhere. (However, virtually all of the prenatal patients who do receive care at the center also participate in the WIC program.)

B. Local Agency and Service Site Characteristics

The Seattle-King County Department of Public Health serves both the residents of the city of Seattle, WA, and surrounding King County. The combined population was 1,300,000 in 1981 and, according to the 1980 census, 28 percent of the population lived at or below 200 percent of the Federal poverty level.

The Department of Public Health is the sponsoring local agency for WIC services at each of its seven district offices as well as at nine independently administered community health centers. The agency serves WIC priorities I through III and the total agency caseload is approximately 9,500 participants. Participants receive monthly food vouchers at each of the sites.

The Columbia Health Center is located on a commercial street in southeast Seattle. The surrounding area provides low-income housing for an ethnically diverse population. Formerly a jail, the facility has been remodeled to meet the needs of a health center. Though well maintained and well lit, the facility is too small for its numerous programs. In addition to providing WIC services, the center provides prenatal, pediatric, and public health field nursing services. Plans for a new building are completed, and the funding through county bond issue is secured. The new building will open in mid-1989.

The Breastfeeding Promotion Project

The Breastfeeding Promotion Project traces its history back to 1982 when a public health nutritionist, then working as the maternal and child health consultant (MCH) for the State of Washington, read an article by Derrick Jeliffe which made the point that while most health professionals give lip service to breastfeeding promotion, in their actions they undermine it. The

nutritionist, responsible for the nutritional training of public health nurses throughout the State, thought to herself, "He's right and that's me."

Determined to do more than give lip service to breastfeeding promotion, the nutritionist began to look for ways to effectively promote breastfeeding among low-income women in Washington State. One of her early projects was to write a position paper for the State maternal and child health clinical services program supporting the promotion of breastfeeding. At about this time, the Tacoma-Pierce County Health Department wrote a grant proposal for Federal funding to support a demonstration project which would develop breastfeeding resources for low-income women and would also train health personnel throughout the State in breastfeeding promotion.

Although the Federal grant was not awarded, the nutritionist was able to convince State officials of the importance of the project, and State funding was obtained for many of the envisioned activities. A nurse practitioner with extensive experience in lactation management was hired to provide training for maternal child health and WIC staff throughout the State. Funds were also used to set up a Health Education Associates breastfeeding promotion training conference for health care providers and to provide travel funds for health care workers throughout the State to travel to Tacoma to observe the demonstration project.

In succeeding years, other efforts were organized by the State MCH nutritionist, such as State conferences, referral networks, the purchasing of breastfeeding textbooks for county health departments, and the establishment of small pilot projects in three additional counties.

In 1984 the State MCH nutritionist began meeting with Seattle-King County officials to develop what eventually became the Breastfeeding Promotion Project. The grant application was prepared by the State nutritionist working with the Seattle-King County maternal child health coordinator and the Seattle-King County WIC program coordinator.

Staff. The core staff of the Breastfeeding Promotion Project during the second and third years of its grant are comprised of a full-time coordinator, two half-time public health nurses, a half-time health educator, and a half-time nurse practitioner. In addition, a number of administrators, such as the cowriters of the grant proposal and the directors of the participating health centers, have oversight and supervisory responsibilities which are considered to require 5 to 10 percent of their time. A small fraction of the work load of the public health nursing and WIC staffs at the two sites is also considered to be devoted to the Breastfeeding Promotion Project. A full list of the positions, time devoted to project work, and sources of funding is given in exhibit 29.

The coordinator is an experienced nutritionist with a master's degree in nutrition. Prior to joining the project she worked with breastfeeding mothers and infants in a hospital pediatric unit. As coordinator, she is the person most involved with the day-to-day administration of the project. Her time is divided between the two demonstration sites and, in addition to her administrative duties, she counsels project participants and backs up the other project staff when they are away from the health centers.

The two public health nurses serve as the primary breastfeeding counselors for the Breastfeeding Promotion Project. Each is responsible for participant contact and staff support at one of the two demonstration centers. Both worked in their respective centers as public health nurses before the project began. The public health nurse/breastfeeding counselor who works at the Columbia Health Center combines half-time project responsibilities with half-time responsibilities as a regular public health nurse within the center.

The health educator joined the project during its second year. Her main responsibility has been as production coordinator for a number of written materials produced under the grant. These materials have included brochures for participants as well as technical manuals and audiovisual materials for health care providers.

The nurse practitioner role is that of "super specialist." In addition to a master's of public health nursing and advanced pediatric nurse practitioner training, she joined the project with almost a decade of experience in lactation management. She is with the project approximately 20 hours per week, which is usually split between the two demonstration sites. She is primarily responsible for professional training and for the clinical management of women with severe breastfeeding difficulties, such as infected nipples.

Funding. Funding for the Breastfeeding Promotion Project comes from a 3-year Title V grant from the U.S. Department of Health and Human Services, Division of Maternal and Child Health, to the Washington State Department of Social and Health Services. The grant provides $126,085 per year for each of 3 years. Staff and all expenses are paid through a subcontract with the Seattle-King County Department of Public Health. Additionally, both the State and Seattle-King County support the project through in-kind staff and resource contributions (approximately $8,000-$9,000 and $40,000 per year, respectively).

III. Intervention

A. Service Provision

The Breastfeeding Promotion Project began with two basic assumptions. The first assumption was that the breastfeeding incidence and duration rates for the WIC population served by the Seattle-King County Department of Health were low. They were low not just compared to national rates, but also compared to rates reported for WIC participants, based on the surveys conducted by Ross Laboratories. The second assumption was that breastfeeding rates would rise if participants had access to accurate information and if their attempts to breastfeed were adequately supported.

The three main project goals follow from the basic assumptions. Participants would receive more accurate information and would be better supported if:

1. health care providers received comprehensive state-of-the-art breastfeeding training

2. improved breastfeeding materials were developed, both culturally appropriate materials for participants and technical materials for health care providers

3. an improved service delivery approach could be developed which could be incorporated into existing health care delivery systems. The improved approach would increase incidence through providing individual counseling and group classes, and would increase duration through providing immediate and continuous postpartum contact by means of telephone contact, clinic visits, and home visits

Among the objectives desired by the writers of the Breastfeeding Promotion Project grant was that the services provided at the two demonstration sites should be associated with clear increases in breastfeeding rates. At the Columbia Health Center the objective was to increase breastfeeding incidence over the 3-year life of the project from 8 percent to 27 percent and breastfeeding duration (breastfeeding at 3 months) from 2 percent to 14 percent.

B. Project Processes

When the Breastfeeding Promotion Project received its funding in October of 1985, it had the support of administrators in the City-County Department of Public Health and at the State level, but it lacked a detailed plan of implementation. The health center officials had not been closely involved in developing the grant proposal and many issues remained unresolved, such as when and where project staff would see clients and who would refer them. There were also a number of practical issues, such as where to put desks and who would be responsible for the day-to-day supervision of project staff.

Much of the first 6 months of the project was spent planning and conducting professional training, solving the practical problems, and figuring out how the services offered by project staff could best be integrated with the services offered by the centers. A number of Columbia Maternal Child Health and WIC staff raised objections to proposed project activities either because they felt the services duplicated the services they were already providing or because they believed the proposed activities were inappropriate for the population to be served. The need for the services of a lactation consultant was especially questioned at Columbia because many staff felt that historically "no one wanted to breastfeed."

The important "hook" the project had, though, was that the project was not just asking health center staff to provide additional services, they were planning to provide direct hands-on services themselves. Over time, the Breastfeeding Promotion Project established specific operating procedures and a clearer definition of its role.

Prenatal Contact. Originally it was planned that the breastfeeding project staff would contact participants during their WIC certifications. This did not work out well, because it was difficult to coordinate. Instead, it became the responsibility of the WIC nurse to first inform participants

concerning the Breastfeeding Promotion Project. The project has produced a special pamphlet to be used during this initial contact which discusses the advantages of breastfeeding and describes the special services provided by the project. According to WIC staff, because of time constraints, they are not able to do more than introduce the topic of breastfeeding during this first contact.

The key link between the project and the WIC program is a WIC/MCH nutritionist who serves as liaison. Each day she collects folders for all the prenatal women who were certified that day and for each fills out the top of the project's enrollment form, an example of which is shown in exhibit 30. She then places the forms in the project's mailbox.

All WIC prenatal participants are scheduled for an infant feeding class around their seventh month. (For a time, the class was called the breastfeeding class, but the name was found to deter women who were undecided about which method of infant feeding they preferred.) The classes are held one afternoon each week and are usually quite small, with three to four participants. If a participant enrolls in WIC just prior to her delivery date, the project staff will attempt to cover the class materials through a one-on-one counseling session.

During the case study visit, one breastfeeding class was observed. The class was held in a third-floor conference room, the only available space, which required participants to climb up two flights of stairs. There were four prenatal participants in attendance as well as a breastfeeding participant who had been invited to come with her 5-month-old son.

The project's public health nurse/breastfeeding counselor began the class by talking briefly about her own experience as a breastfeeding mother. After a few moments, she stopped and asked each of the participants to introduce themselves and mention their infant feeding preference. The reply of one of the participants that she would like to both bottle-feed and breastfeed her child launched the class into a discussion of supply and demand. Though the breastfeeding counselor worked from an outline, she freely departed from it based on participants'questions and reactions.

A few moments later the breastfeeding counselor asked, "Why are we promoting breastfeeding?" and then answered by listing what to her are the primary advantages: Mother-child closeness, health of baby, and convenience. The breastfeeding participant concurred.

A flip chart was then used to cover the basic physiology of breastfeeding and a doll and cloth breast were used to show proper attachment and positioning. The discussion then turned to breastfeeding management issues such as getting the baby soon after birth, engorgement, feeding on demand, and sore nipples. Overall, the tone was informal, positive and encouraging. As the class progressed, the participants seemed more willing to enter in with their own questions and comments. At the end of class the counselor made the point that if a participant decides not to breastfeed, formula is available through WIC.

During the class, a WIC clerk came in and handed the breastfeeding counselor the participants' WIC folders (in which class attendance is noted) and their monthly food vouchers. Toward the end of the class the breastfeeding counselor gave out the vouchers while continuing to answer questions. A breastfeeding project brochure was also handed out along with the name and telephone number of the counselor on a card. Class time from beginning to end was 50 minutes.

In-hospital Services. Breastfeeding project staff are usually notified relatively soon of the birth of infants to participants receiving prenatal care at the health center. The breastfeeding counselor then calls the participant to see how she is doing. If she is having a problem with her breastfeeding, they will discuss it on the phone and, if necessary, a referral will be made to the staff nurse at the hospital or, in the case of one of the hospitals, to the lactation consultant.

Project participants who do not receive prenatal care at the clinic are rarely contacted at the hospital unless participants themselves call the project for assistance. More frequently, the telephone contact will be made after the mother returns home.

According to project staff, while the three hospitals where participants usually deliver are supportive of breastfeeding, the main difficulty is that customary practice is now to release participants within 2 days after the birth. In most cases, breastfeeding has not yet been well established and problems such as engorgement or sore nipples may occur shortly after the mother and infant arrive home.

Postpartum Contact. The breastfeeding project enrollment forms of prenatal participants are kept in a tickler file according to their expected dates of delivery. The breastfeeding counselor begins telephoning participants who have indicated an interest in breastfeeding during the week of their due date. During the first postpartum phone call, the breastfeeding counselor determines whether the mother is breastfeeding and, if so, how it is going.

Once it is determined that a participant is breastfeeding, her referral form is placed in alphabetical order in a separate notebook. The breastfeeding counselor will call each of the participants to offer support and encouragement as often as she feels is necessary. During the immediate postpartum period it may be several times a day. Later, after breastfeeding is established, it may be as rarely as once a month. The breastfeeding counselor will, if needed, also make clinic appointments or referrals, for example, to see the nurse practitioner. Often, too, the breastfeeding counselor will meet briefly with a breastfeeding participant when she comes to the clinic for a medical or WIC appointment. The project is also able to loan breastfeeding equipment to participants, such as electric and manual breastpumps and nursing supplementors. As originally envisioned, the breastfeeding counselor would not make home visits; however, as the service model evolved the public health nurse breastfeeding counselor has made home visits for participants with acute problems who cannot come into clinic.

All breastfeeding participants are followed for 6 months or until they stop breastfeeding, whichever occurs first. During the time of the case study research (September 1987), 53 of Columbia Health Center's participants were actively breastfeeding. Each interaction with a project staff person is noted on their breastfeeding project enrollment form and also a separate encounter form is completed which will be analyzed as part of the project's final evaluation.

Project staff noted that one of the main difficulties they encounter with the followup phone calls is that the participant's telephone number of record is not accurate. Project staff report being disheartened when they are unable to contact participants they have worked with prenatally. As one of the project staff phrased it, "We can't help people we can't find."

Role of the Lactation Consultant. The project's nurse practitioner, in her role as lactation consultant, brings to the project a developed expertise in lactation management. Part of her role has been to offer direct services to participants. At Columbia she has regularly performed the 2-week well-baby check for all breastfed babies receiving pediatric services at the Center. The lactation consultant also meets individually with women who have breastfeeding-related difficulties, talks with them on the telephone and, in some cases, makes home visits. Her experience has enabled many women to breastfeed successfully who might otherwise not have tried or terminated early; for example, women with Cesarean section deliveries or women with failure-to-thrive infants.

Complimenting her direct services role has been the nurse practitioner's role as a teacher and role model. To some extent, she has provided on-the-job training for the other members of the project staff. Although the project coordinator and the public health nurse had previous experience and training in breastfeeding promotion, working with the nurse practitioner has considerably sharpened their theoretical and clinical knowledge.

In order to make her inservice training classes more attractive to clinical nurses who may believe their possibly-dated breastfeeding knowledge is sufficient, the project's lactation consultant chooses topics with a problem solving theme, such as "Breastfeeding a Failure-to-Thrive Infant." As part of the discussion, the instructor can also introduce current information about breastfeeding basics.

Another type of on-the-job training occurs through the clinical teaching cases the lactation consultant discusses with nurses and physicians at the health center. Often, too, the lactation consultant provides what she calls "role model teaching," that is, modeling the attitudes and interaction styles which are most supportive of low-income women attempting to breastfeed.

Training Health Professionals. In addition to the inservice and on-the-job training provided by the nurse practitioner and other members of the project staff, Columbia Health Center's efforts in the area of breastfeeding promotion have also been strengthened through two 5-day training sessions organized by the project and conducted by trainers from the Wellstart/San Diego Lactation Program. Both training sessions were open to health care providers throughout the State of Washington, but special efforts were made to include staff from Seattle-King County Health Department sites and

especially from the project's two demonstration sites. The first training was a general session for nurses, nutritionists, and physicians. The second training was intended especially for hospital personnel and included site visits and training at the hospitals where most of the Columbia Health Center WIC participants deliver.

Materials Development. Breastfeeding Promotion Project staff members were in the process of developing a number of breastfeeding promotion tools intended either to improve services or to share their experience with other health professionals. Responding to the lack of clear but simple materials for low-income and minority populations, the project has produced a series of simple, one-page fact sheets on breastfeeding topics with titles such as "Why Breastfeed," "Breastfeeding after C-section," and "Tips for Moms." The fact sheets will be produced in several different languages in addition to English, and are intended to give patients the information they need without overwhelming them.

Several publications were also being produced for health professionals. "The Triage Tool," written during the second year of the project, is a manual designed to help health workers answer questions from mothers with breastfeeding difficulties. "The Triage Tool" is organized as a decision tree for quick reference and will eventually be produced as a spiral-bound book sized to fit a lab coat. Another professionally oriented publication is expected to be produced during the project's third and final year; it will be a professional manual on breastfeeding which will document the lessons learned during the Breastfeeding Promotion Project.

Finally, because available video materials paid scant attention to breastfeeding techniques, the project prepared a video, "The Subtle Aspects of Breastfeeding" to introduce health professionals to some of the clinical issues in lactation management. The video treats breastfeeding basics, such as positioning, attachment, and suckling, as well as more rarely treated topics, such as tongue sucking and breastfeeding the premature infant. (The videotape is intended for commercial distribution and is available from the project.)

IV. Outcomes

A. Client Outcomes

The Breastfeeding Promotion Project has made an effort to document both the encounters project staff have with participants and the extent to which participants breastfeed. Prior to initiation of the project, a baseline breastfeeding rate was established through calculating the incidence and duration of breastfeeding during 1984 among the WIC participants at the health center*. The site also provided the case study researchers with

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*Although the Breastfeeding Promotion Project is not a WIC-sponsored initiative, it serves a WIC population, both insofar as WIC services are among the services offered at each Health Department site, and insofar as individuals who receive prenatal, obstetrical or pediatric care through the health department are also almost always WIC participants. Because of the close relationship between WIC and health department services, WIC statistics are used by the project to establish a baseline and gauge effectiveness.

comparable statistics for midyear 1986 (shortly after the project started up in October 1985) and for the first 5 months in 1987. As shown in exhibit 31, by the second year of the grant a significant rise in breastfeeding incidence and duration had occurred. The incidence figure for 1987 well exceeds the project's second-year objective, which was that 18 percent would breastfeed.

The 1987 statistic for duration of breastfeeding is somewhat less than the second-year objective that 9 percent would breastfeed for 3 months or longer. But according to project staff, the 7.5 percent figure for 1987 is actually an underestimation due to the WIC program's method of recording breastfeeding duration (the number of weeks breastfed is only recorded when the infant is enrolled for a full formula package or is 1 year old).

The incidence and duration figures, however, cannot readily convey the effect the project has had on women who might have quit but did not. One of the most noteworthy features of the Seattle project is the seriousness with which it supports breastfeeding mothers. Many breastfeeding projects support mothers by helping with the commonly encountered difficulties -- such as perceived lack of milk or sore nipples. The Breastfeeding Promotion Project has established a system so that mothers with uncommon problems, such as tongue sucking infants or mothers with inverted nipples, receive both expert technical advice and extraordinary encouragement and support. For example, one of the breastfeeding mothers mentioned with great appreciation the role the project played in helping her breastfeed. Just after her baby was born she had a number of problems including an inverted nipple and an infant that was not gaining weight. The doctors and nurses she saw encouraged her to use formula. The project staff, however, worked with her intensely and found ways to resolve the difficulties. At the time of the interview she was breastfeeding a robust 5-month-old boy.

B. Project Outcomes

The Breastfeeding Promotion Project was set up as a time-limited intervention. A primary objective of fiscal year 1987-88 is to plan how gains made during the 3-year project might continue. Some of the project accomplishments can readily be continued or transferred. Because of the in-service training and workshops, there exist throughout the Seattle-King County Department of Health a much higher level of breastfeeding knowledge and consciousness which is not expected to dissipate once the project ends. It is also expected that educational materials produced by the project will be used not only by the Seattle-King County Department of Health, but also by other public health providers in Washington State, and to some degree, by health care providers throughout the United States.

The more difficult transition concerns the breastfeeding support and encouragement directly provided to health center patients by project staff. During the time when the case study observations occurred, project staff were meeting with project organizers and health department officials to plan the transition. They hoped that a multi-variate analysis relating project staff encounters to participant outcomes would aid their discussion through providing an indication of the types of activities which appear to be most beneficial to various types of clients.

Preliminary opinions expressed by health department staff were that the best way to institutionalize the breastfeeding counselor model of service delivery was to distribute responsibilities among positions which already exist. Rather than have a public health nurse work half time exclusively on breastfeeding promotion and support, all the maternal and child health nurses would promote breastfeeding with the patients they saw. One public health nurse, though, would be identified as a resource person in the area of breastfeeding promotion. Other health care providers in the clinic could refer cases to her or seek her advice.

V. Summary

The Seattle-King County Breastfeeding Project is a unique local-State-Federal cooperative effort to establish programs and create educational materials to increase breastfeeding rates among low-income women. At the Columbia Health Center, and at the North Health Office, the project has implemented a service delivery model in which project staff provide prenatal breastfeeding education, postpartum breastfeeding support, and expert clinical management of breastfeeding problems. The most noteworthy characteristics of the service delivery model are its technical expertise and its thoroughness. The project staff are able to keep women breastfeeding through circumstances that lead most low-income women to quit.

In addition to developing the service delivery model, the project has been a primary source of breastfeeding promotion training for health care providers in Seattle-King County and the State of Washington. The project has also produced a number of educational materials both for low-income women and for health professionals.

The Breastfeeding Promotion Project was studied at the beginning of its third and final year. Among the key questions facing project staff and project organizers is how demonstrably effective services provided during the supplementally funded demonstration phase can best be incorporated into ongoing systems for providing public health care and WIC services.

EXHIBIT 28

RACIAL/ETHNIC COMPOSITION OF WIC PARTICIPANTS IN 1985: COLUMBIA HEALTH CENTER

Race/Ethnicity	Percentage of WIC Participants (N = 1,050)
Black	53%
Asian	31%
White	11%
Hispanic	3%
Native American	1%
Unknown	1%

EXHIBIT 29

STAFFING PATTERN OF THE BREASTFEEDING PROMOTION PROJECT

Funding	Number	Percent Time
a. Position funded through Breastfeeding Promotion Project grant:		
Coordinator/nutritionist	1	100%
Public health nurses/breast-feeding counselors	2	50%/each
Health educator	1	50%
Nurse practitioner	1	50%
b. Positions funded through State/City-County in-kind contributions:		
City-County maternal child health coordinator	1	10%
State maternal child health nutritionist/grant manager	1	10%
Health center supervisors	2	10%/each
WIC clerk	3	5%/each
WIC nurses	3	5%/each
WIC nutritionist	2-1/2	5%/each

EXHIBIT 30

ENROLLMENT FORM AND PROGRESS SHEET

Courtesy of Seattle-King County Breastfeeding Promotion Project, WA

F R O N T

I.D.#_____ ___OB ___WIC ___OB/WIC EDC:_____

NAME_____ MD_____ ACT. DEL:_____

BIRTHDATE_____ HOSP._____ BABY'S NAME:_____WT.:_____

ADDRESS_____

PHONE_____

ENCOUNTERS DONE

	INITIAL ENCOUNTER
	P.P. ENCOUNTER

BREASTFEEDING CLASSES

SCHEDULED FOR:	
IN WIC BOOK	
ATTENDED BF CLASS	
CHARTERED IN MED. REC.	
ENCOUNTER DONE	

✓	MONTHLY CONTACTS DUE: (Check when done)

DATE	

B A C K

DATE	PROGRESS NOTES	SIGNATURE & TITLE

EXHIBIT 31

BREASTFEEDING INCIDENCE AND DURATION AMONG
COLUMBIA HEALTH CENTER'S WIC PARTICIPANTS

	1984* (Jan. - Dec.) (N = 188)	1986 (Mar. - June) (N = about 70)	1987 (Jan. - May) (N = 93)
Incidence (any attempt to breastfeed)	8%	7.5%	27%
Duration (any amount of breast-feeding at 3 months)	2%	1%	7.5%

*Baseline data. The project was initiated in October 1985.

IV. CONSIDERATIONS FOR IMPLEMENTING BREASTFEEDING PROMOTION INTERVENTIONS

The foregoing case studies discuss a number of breastfeeding promotion strategies, techniques, and educational materials which local agencies and service sites may wish to replicate or adapt. Taken together the case studies also demonstrate that effective breastfeeding promotion is a dynamic, creative process that involves forethought, planning, and persistence on the part of WIC staff and others.

The experience of the case study sites indicates that the process of effective breastfeeding promotion usually involves, at least implicitly, six distinct phases:

- assessing the situation;
- setting goals;
- identifying appropriate interventions;
- establishing objectives;
- implementation; and
- evaluation.

A. Assessing the Situation

Among the elements WIC programs should consider when planning a breastfeeding promotion project are current breastfeeding rates, services currently available, barriers which inhibit breastfeeding and available resources.

Local agencies and sites differ with regard to the availability of breastfeeding data. The only relevant data available at some sites is the ratio of women certified as breastfeeding to prenatal participants. This ratio is difficult to interpret as it is influenced by the number of women who enter the program postpartum and the length of time prenatal and breastfeeding women receive services. Furthermore, the ratio does not reflect the usually significant number of participants who breastfeed but stop breastfeeding before postpartum certification, or continue to breastfeed occasionally although they are certified as non-breastfeeding postpartum participants.

A somewhat better indication of the breastfeeding level is the ratio of infants certified as breastfed (or mothers certified as breastfeeding) compared to the total number of infants certified during a specified time period, such as a month or quarter. This ratio is complemented by an indication of the number of infants who were ever breastfed. A number of sites now record whether or not the infants were ever breastfed as part of the postpartum or infant certification process.

In order to provide more detailed information than available by the above indicators, a number of sites have developed their own breastfeeding records and tracking procedures. A well-thought-out record-keeping system can provide invaluable information on the breastfeeding incidence and duration of the caseload as a whole as well as specific subgroups. For example, breastfeeding rates for participants who enter the WIC program as prenatal participants can be compared to rates for participants who enter the WIC program postpartum.

Another key component of assessment is determining what breastfeeding promotion services are being offered to and received by WIC participants. It may be useful to chart the services offered by WIC staff and other providers to WIC participants during the prenatal, in-hospital, and postpartum periods. It is also useful to know the extent to which participants receive the services. Not everyone participates in all services. The identification of the barriers which prevent or constrain mothers from participating will aid program staff in developing interventions appropriate to the population served. For example, it is useful to know the extent to which low breastfeeding rates are due to lack of information, lack of professional support, or external constraints such as the demands of employment. In some cases the answers may seem obvious; however, thoughtful interviewing, attitudinal surveys and focus groups may well uncover unexpected barriers.

Finally, the assessment should be concerned with a realistic appraisal of available resources. Does the local agency or the site have funding to pay for training and educational materials? Is it possible to introduce interventions which will lengthen the time participants spend with nutrition counselors? Can other agencies or institutions, such as hospitals, be induced to cosponsor services or provide in-kind support? The answers to these question will influence the types of interventions which are feasible.

B. Setting Goals

Once the current situation and available resources are defined through assessment, goals should be developed to describe improvements to be achieved by breastfeeding promotion efforts. Stated goals can also serve the important symbolic function of establishing the agency's and staff's commitment to breastfeeding promotion. At several sites it was noted that innovative program goals were a blend of good assessment and the creative vision of key staff.

Both long-term and short-term program goals should be set. Long-term program goals, such as increasing the incidence and duration of breastfeeding, establish the general direction which breastfeeding efforts will take. Short-term goals are more specific and focus breastfeeding efforts on particular activities and participant groups. Examples of short-term goals are: (1) to increase awareness of breastfeeding advantages among prenatal participants, or (2) to increase immediate postpartum support for participants who have indicated an interest in breastfeeding.

C. Identifying Appropriate Interventions

Once goals have been established, appropriate interventions must be selected. It is at this stage that the breastfeeding promotion literature and the experience of other agencies are often most helpful. One of the chief purposes of this compendium is to supply WIC staff with details on a wide range of breastfeeding promotion interventions which appear to be effective with a wide variety of WIC participants.

Despite obvious differences, there are some common features in the manner through which the eight case study sites arrived at the interventions highlighted in this compendium. One of the common features is that in each program there had been an evolution of breastfeeding promotion efforts with observed practices being an outgrowth of earlier, and most often smaller or more tentative, attempts. At each site program staff talked about improvements and changes they would like to make next year, or would make if they had more time or money.

Another common feature was that all the case study sites had implemented a wide variety of breastfeeding promotion interventions. None of the sites employed a single, all-purpose technique. Rather, the common strategy was to provide services at many points in time with the belief that cumulatively they might influence participants, knowledge and practice. A number of the sites could list 30 or more activities they were pursuing to promote breastfeeding.

Finally, despite the number and variety of activities, staff at all of the case study sites emphasized the central role of the WIC nutrition counselor. In particular, they stressed there was a need for the counselor to be:

- well qualified and trained as a breastfeeding counselor, who receives ongoing professional training;
- knowledgeable of and sensitive to the needs and attitudes of participants;
- supported by the WIC program and the sponsoring institution; and
- allowed enough time to adequately perform her tasks.

D. Establishing Objectives

Objectives specify the measures by which change can be gauged. Objectives should make explicit the time period during which a stated change is to occur. The important role of objectives is to establish explicit criteria against which progress towards the successful implementation of the interventions and advancement toward attainment of the breastfeeding promotion goals can be measured.

A number of the studied programs routinely developed detailed objectives as part of their yearly planning process. For example, one of the sites chose as its objective that "By April 30, 1988, the year-to-date percentage of infants of WIC mothers who receive breast milk for 1 month or longer will be 30 percent." The site then went on to specify eight interventions they would implement to achieve this objective and the person responsible for each of the actions.

Many sites developed detailed objectives to assess the successful implementation of each intervention. For example, objectives relating to the program's breastfeeding class might specify how many times the class should be offered each month or year and the percentage of prenatal participants who should be influenced through attending the class.

E. Implementation

The difficulty of implementing a breastfeeding project depends greatly on the scope of the effort. Some efforts, the introduction of new educational materials, for example, may require relatively little preparation. Other efforts, such as the development of a three-party contract among the Near North Health Center (IL), the WIC program and the local hospital, required detailed planning and months of concerted effort.

Regardless of the scope of the effort, however, without effective implementation even the most well designed intervention has little chance of success. Breastfeeding promotion efforts at most case study sites involved all the staff, not just a few selected individuals. Sites trained clerks, secretaries, auxiliary health-care workers, and others in breastfeeding fundamentals and the basic elements of the site's promotion efforts. All the staff could then respond correctly to questions, make appropriate referrals, and, at minimum, not pass on incorrect or outdated breastfeeding information.

Another common element was that most of the studied sites had carefully thought through the implementation process of major interventions. Planning schedules were developed detailing which aspects were to be implemented each month. In several cases pilot projects or trial periods were formulated so that the local agency or site did not prematurely commit itself to an ineffective or inappropriate intervention.

F. Evaluation

The overall goal of evaluation is to provide staff and program planners with information which will enable them to improve the efficiency, effectiveness, and responsiveness of the offered services. Periodic evaluation allows a WIC program to ask and answer the fundamental question "How are we doing?"

Basically, three issues are involved in an evaluation of a breastfeeding promotion project or effort:

- Were the selected breastfeeding promotion activities implemented as intended?

- What changes have occurred in breastfeeding rates among program participants? For example, Are more participants breastfeeding? Are they breastfeeding longer?

- Are there other factors besides the planned interventions which could have influenced breastfeeding practices during the period when the interventions occurred?

Evaluation should be considered at the beginning stages of an intervention. Forethought regarding how an outcome evaluation might be conducted aids the assessment process and helps to clarify goals and objectives. Similarly, a good assessment and clearly defined goals, interventions, and objectives establish the groundwork for more powerful and useful evaluations.

The evaluation process, conducted after one or more interventions have had sufficient time to demonstrate their value, should lead naturally to a reassessment of the situation, and a reconsideration of goals, objectives and interventions. If the interventions appear successful, the situation has changed (e.g., prenatal WIC women are more knowledgeable about the benefits of breastfeeding for themselves and their babies). New objectives may be appropriate. For example, a new objective may be to increase the duration of breastfeeding among WIC participants. If desired change did not occur, then either the situation was not assessed effectively, the appropriate interventions were not chosen, or factors external to the WIC program influenced the result. For example, if more women did not begin breastfeeding despite the special classes, perhaps the classes failed to counter a barrier to breastfeeding such as embarrassment in public or perhaps a formula company introduced an advertising campaign.

In summary, the WIC Breastfeeding Promotion Study and Demonstration has uncovered a wealth of practical approaches which appear to effectively encourage and support breastfeeding among WIC participants. Many of these approaches can effectively be transferred to other local agencies and sites. Most of the educational materials and counseling techniques described in this compendium can profitably be shared. However, the study on which this compendium is based suggests also that there are no ideal all-purpose strategies for breastfeeding promotion in WIC. Effective breastfeeding promotion depends on creative, thoughtful, hard-working staff who understand their circumstances, desire to bring about change, and have the will to carry interventions through. Without such people, and without a process for implementing and evaluating change, the most carefully constructed strategies are unlikely to succeed.

APPENDIX A

OVERVIEW OF THE WIC PROGRAM

Background

The Special Supplemental Food Program for Women, Infants, and Children (WIC) is a supplemental food program for low-income pregnant, postpartum, and breastfeeding women, infants, and preschool children who are at nutritional risk. The program is unique among Government food assistance programs in that it provides specified supplemental nutritious foods and nutrition education as an adjunct to health care. WIC's purpose is to prevent health problems and improve the health of program participants during critical times of personal growth and development.

Legislation and Funding

The WIC Program was established in 1972 by Public Law 92-433, which added it as Section 17 to the Child Nutrition Act of 1966. Originally, the program was a 2-year pilot project, but since operations began in 1974, the WIC Program has been reauthorized five times through 1984. Continuing resolutions have provided continued authorization and funds for 1985, 1986, 1987, and 1988. WIC's appropriations have expanded from $20 million for the first 2 years to approximately $1.8 billion for the 1988 fiscal year.

Public Law 94-105 in 1975 required that 20 percent of the total funds appropriated annually for WIC be made available for State and local administrative costs. Such costs are defined to include, but are not limited to, costs of certification, food delivery, nutrition education, outreach, and new program startup. It further specified that a minimum of one-sixth of administrative funds be used for nutrition education.

Participants

WIC is not an open-ended entitlement program but must operate within the funding levels established each year by the Congress. Therefore, the number of participants in the program each year depends upon the total amount of funds made available and the allocation of these funds by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) to individual States. Since 1977, WIC regulations have specified a participant priority system to determine which applicants will be enrolled when a local agency has reached its maximum participation level. The current priority levels are as follows.

Priority I	Pregnant women, breastfeeding women, and infants at nutritional risk as demonstrated by hematological or anthropometric measurements, or other documented nutritionally related medical conditions which demonstrate the person's need for supplemental foods.
Priority II	Except those infants who qualify for priority I, infants up to 6 months of age of WIC participants who participated during pregnancy, and infants up to 6 months of age born of women who were not program participants during pregnancy but whose medical records document that they were at nutritional risk during

pregnancy due to nutritional conditions detectable by biochemical or anthropometric measurements or other documented nutritionally related medical conditions which demonstrated the person's need for supplemental foods.

Priority III — Children at nutritional risk as demonstrated by hematological or anthropometric measurements or other documented medical conditions which demonstrate the child's need for supplemental foods.

Priority IV — Pregnant women, breastfeeding women, and infants at nutritional risk because of an inadequate dietary pattern.

Priority V — Children at nutritional risk because of an inadequate dietary pattern.

Priority VI — Postpartum women at nutritional risk.

Program regulations also permit State agencies to assign high-risk, postpartum women to a higher priority level. They also permit establishment of an optional priority VII to be reserved for previously certified participants with no current problems but who may regress in nutritional or health status without continued availability of benefits.

In summary, the individuals named above constitute five major target groups:

- Pregnant women;
- Breastfeeding women (up to 12 months after delivery);
- Infants;
- Children (up to 5 years of age); and
- Postpartum women (up to 6 months after delivery, if not breastfeeding).

To be eligible, an individual must meet income eligibility guidelines established by his/her State, meet the State's residency requirements, and be determined to be at "nutritional risk" by a health professional. The Federal income eligibility criterion is specified as gross family income not exceeding 185 percent of the non-farm poverty income defined by the Office of Management and Budget. State WIC agencies may set more stringent eligibility requirements, but not lower than 100 percent of the poverty level.

Nutritional risk classifications are made on the basis of biochemical or anthropometric measurements, nutrition-related medical conditions, or by dietary assessment. Program regulations leave to individual State and local agencies the responsibility for developing appropriate screening systems and establishing operational definitions for each of these nutritional risk criteria.

Administration

The WIC Program is administered by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA). Federal funds for program operations are provided by FNS as grants-in-aid to State health departments (or comparable agencies). Indian tribes, bands, or groups or their authorized representatives recognized by the Bureau of Indian Affairs, U.S. Department of Interior, or the appropriate area

office ofthe Indian Health Service, U.S. Department of Health and Human Services may also act as State agencies. Funds are then distributed by the State agency to participating local health agencies, including public or private nonprofit health or welfare agencies. Local agencies may operate one or more service sites. Priority for setting up local programs is given to areas whose populations need benefits most, based on high rates of infant mortality, low birthweight, and low income. Currently, WIC operates through State health departments in 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands. Additionally, 33 Indian tribal councils and organizations serve as WIC State agencies. Approximately 1,600 local agencies serve about 3.3 million participants through 8,000 clinic sites.

Benefits

The WIC Program aims to improve the health of participants by providing three specific benefits -- nutritious supplemental food, nutrition education, and linkages with health care providers. The provided foods are high in protein, calcium, iron, and vitamins A and C, and include milk, iron-fortified infant formula, juice that is high in vitamin C, cheese, eggs, iron-fortified cereals, and dried beans and peas or peanut butter. These foods are most commonly provided to program participants by a system of retail purchase, whereby participants redeem vouchers at approved retail grocers. Other methods of food provision are delivery of food to participants' homes, and direct distribution where participants pick up prescribed foods at a local WIC agency or warehouse.

The second program benefit, nutrition education, is provided by nurses, nutritionists (who may or may not be registered dietitians) or nutrition aides. Breastfeeding promotion is mandated to be a component of the program's nutrition education activities, and all pregnant women participating in WIC must be encouraged to breastfeed unless contraindicated for health reasons. Program regulations require two nutrition education contacts with prenatal participants. For all other categories of participants, two nutrition education contacts are offered to the participant or principal caretaker during each 6-month certification period.

In addition to the nutritionists that each local agency employs, each State agency employs a nutrition coordinator, whose responsibilities include the provision of inservice training and technical assistance to WIC educators, identification and development of nutrition education resources and materials, and monitoring and evaluation of local agency nutrition education activities.

Finally, WIC local agencies are required to make ongoing routine pediatric and obstetric care services available and to make referrals to programs such as immunization, family planning, drug, and alcohol abuse. Usually an integral part of the health care system, the WIC Program encourages the use of existing services, including prenatal and postpartum health supervision and infant and child health care. Most WIC services are located in or near hospitals or public health facilities in which participants are already enrolled for health care or to which they can be referred.

APPENDIX B

STUDY METHODOLOGY

This compendium is the result of a multistep process to identify and study breastfeeding promotion efforts addressed to low-income women within the context of the WIC program.

The study activities included a State agency survey, local agency survey, telephone followup, and case study visits.

State Agency Survey

Eighty-seven WIC State agencies (including geographic State agencies, District of Columbia, Virgin Islands, Guam, and Indian State agencies) were asked to complete a mail survey on breastfeeding promotion and to nominate local agencies or service sites which they believed were effective in promoting breastfeeding. In appraising the success of various WIC local agencies or service sites, WIC State directors were asked to consider the agencies' or sites' effectiveness in encouraging breastfeeding in relation to the historic or expected rates of breastfeeding for the population being served. Thus, the nominated sites need not necessarily have been among those in the State with the highest absolute rates of breastfeeding. In addition to effectiveness, State WIC directors were asked to consider the extent to which the effective breastfeeding promotion practices at a nominated site could be transferred to other WIC local agencies and service sites.

Responses were received from 70 of the 87 WIC State agencies, 41 of which nominated a total of 72 local agencies or service sites.

Local Agency Survey

A comprehensive 32-page survey form was sent to the 72 nominated local agencies. In cases where the State agency had nominated a particular service site, the local agency was asked to make that particular site the focus of the survey form. If no specific site or project had been nominated, the WIC local agency was asked to select a service site which best exemplified the agency's approach to breastfeeding promotion.

The local agency form was divided into 10 sections: the WIC local agency; description of the service site; the client population; breastfeeding promotion approach; project processes (prenatal); project processes (in-hospital postpartum) project processes (post-discharge postpartum); project processes (indirect services); program outcomes; and closing.

Completed survey forms were received by the deadline from 54 of the 72 nominated local agencies and service sites. (An additional four local agency forms were received substantially after the deadline for receipt.)

Telephone Followup

Each of the 54 local agency forms was read by two members of a committee comprised of the project's staff and a representative from the Food and Nutrition Service. Sites were scored on their demonstrated effectiveness, service provision, cost, and

transferability. Twenty service sites which were considered candidates for the case study visits were selected for telephone followup. The purpose of the followup interviews was to clarify the information on the local agency forms to enable the selection committee to arrive at a choice of six of the sites to recommend for case study.

The telephone followup interviews were conducted by the project's two technical staff members and mainly consisted of clarifying the local agency form. On completion of each telephone interview, the interviewer summarized the relevant issues on a form which also allowed for a recommendation to be made to the selection committee regarding the appropriateness of the particular site for case study.

Case Study Selection

In selecting WIC case study sites, the committee considered first the criterion of effectiveness and then the criteria of transferability and cost. Representativeness was also considered, that is, the extent to which the six selected WIC sites would represent the geographic, ethnic/racial and organizational diversity of WIC programs.

Non-WIC Site Case Study Selection

Six non-WIC sites were suggested by FNS and DHHS staff for possible inclusion in the study. All were sent modified versions of the WIC local agency survey form. After telephone followup calls, two sites that had breastfeeding promotion programs compatible with the structure of WIC, without duplicating approaches that were already represented among the selected WIC sites, were selected for case study.

Case Study Visits

Case study visits were made to the six selected WIC sites and two selected non-WIC sites during September and October 1987. With the exception of a 2-day visit to the MCH Migrant Health Project at Tri-County Community Health Center in North Carolina, all site visits lasted 3 days. The two-person study team for each site consisted of a nutritionist with working experience in WIC and a social scientist.

Onsite study methodology included staff interviews; prenatal and postpartum participant interviews; observations of clinic areas; and observation of breastfeeding promotion related activities. In addition, educational materials, forms and protocols were collected. Whenever possible and appropriate, visits were made to the delivering hospital, interviews were conducted with key staff members, and materials were collected there as well.

Study Products

In addition to this compendium of findings, several other reports which document the study process are available from the Food and Nutrition Service of the U.S. Department of Agriculture. These study products are:

- The Report on the Literature Review — February 13, 1987
- The Study Design Plan — March 4, 1987
- The Supporting Statement Prepared for the Office of Management and Budget — February 1987

- The Report on Case Study Site Selection — August 4, 1987
- The Case Study Report — January 30, 1988
- The Phase III Report — February 26, 1988

APPENDIX C

OVERVIEW OF THE 34 WIC LOCAL AGENCIES AND SERVICE SITES NOT FOLLOWED UP BY TELEPHONE INTERVIEW OR CASE STUDY

Although there were 34 sites not included in the more definitive study sample, their completed mail survey forms provided information about approaches, techniques and strategies used to promote breastfeeding. Because this information may be of interest and assistance to WIC administrators, practitioners and others concerned about and involved in the promotion of breastfeeding, some of the highlights of these 34 sites are summarized below.

A. Context

Of the 34 sites, 17 served largely rural populations, 15 served urban/suburban, 1 served both rural and urban, and 1 was limited to an Indian reservation. With the exception of the Seneca Nation Indian WIC Program (NY) which used a home delivery system and the Batesville, WIC Program (MS) which used direct food distribution, all sites used a retail purchase system for food distribution.

Compared to the 20 WIC sites in the telephone followup sample, a larger percentage of the 34 sites reported that the WIC services provided at the site were integrated with other health and social services, as defined by sharing an administrative structure or client recordkeeping system with another program or agency. Fewer than one-half of the WIC sites reported the availability of supplemental funds. Among resources mentioned were Head Start, United Way, March of Dimes, local and state agencies, affiliated hospitals, community health centers, Title V Maternal and Child Health Special Project funds, and private contributors.

The caseloads of the 34 sites were somewhat similar to the 20 WIC study sites. In terms of ethnic groups served, whites were the most common group in 24 sites, Blacks predominated in 6 sites and 3 served Native Americans. Small proportions of Hispanic, Asian and other groups were also served. Caseloads at individual sites ranged from 24 to 9,670. Over half of the sites (19) served all six priority groups, 11 served priorities I through IV or V, and 3 served only two or three priorities; and one site did not respond.

As was true in the 20 WIC sites studied in more detail, almost two-thirds (22 of the 34 sites) indicated that they served a large number of single mothers. Young mothers, below the age of 19, comprised 25 percent or more of the caseload at 8 of the 34 sites and working mothers constituted at least 25 percent of the caseload at 9 of the 34 sites.

B. Breastfeeding Promotion Interventions

The majority of the 34 sites targeted their interventions on the prenatal and postpartum periods using a variety of educational methods and materials. As was

the case in the 20 WIC study sites, involvement during the in-hospital period occurred in a very limited number of sites. However, many of the sites had developed educational programs and referral mechanisms with the hospitals in their area.

A limited number of sites reported the development of standards, guidelines and protocols related to breastfeeding. For example, the Soutel/Northwest Comprehensive Health Care Center WIC Program (FL), indicated that they had standards related to formula restriction. At the Maternal and Infant Care WIC Program (GA), policies and standards regarding the distribution of formula gifts and the use of advertising materials have been developed. Both the Operation Threshold WIC Program (IA) and the Upson County WIC Program (GA) reported that they had detailed guidelines and procedures related to the promotion of breastfeeding.

Prenatal Strategies

Counseling and education about breastfeeding were provided to pregnant women in all sites. A variety of types and levels of personnel were utilized for these services. For example, the Soutel/Northwest Comprehensive Health Care Center WIC Program (FL) is involved in pilot lactation breastfeeding clinics established at two Duval County Health Centers. At these pilot clinics one-to-one support is provided to mothers who decide to breastfeed. The pilot clinic staff conducts intensive classes at maternity clinics using representatives from a multidisciplinary breastfeeding task force as instructors. During the third trimester a card is issued to the expectant mother which is used to schedule a 1-week postpartum visit to the clinic for herself and the baby.

The Operation Threshold WIC Program (IA) provides for three contacts by a paid staff dietitian during the prenatal period. The first occurs at the mother's certification, the second at about 3 months and the third at 1 month prior to delivery. A breastfeeding class focused on "how to" is scheduled at this latter time. Individual counseling and support continues at three post-discharge contacts.

Several of the sites use paid or volunteer counselors who usually have had some training and experience with breastfeeding. In the Near To The Heart Breastfeeding Project at the Upson County WIC Program (GA), "breastfeeding resource mothers" serve as volunteer counselors. They teach and support the pregnant woman from the prenatal period to at least 3 months postpartum. At the Littleton WIC Program (NH), a WIC-paid breastfeeding counselor, who is a lay midwife, counsels all pregnant, breastfeeding and postpartum women at clinics at the time of certification, at least once more during the prenatal period as well as at 6 weeks postpartum. A breastfeeding questionnaire is completed by all pregnant women at the Baltimore County Health Department WIC Program (MD) at the initial certification. The completed questionnaire is reviewed by a community nutrition assistant and then discussed with the mother. Followup counseling is provided by a volunteer peer counselor who is a WIC participant with breastfeeding experience. The counselor usually has two prenatal contacts, may call or visit the mother in the hospital, and visits or calls the mother 1-2 weeks after delivery.

In-hospital Strategies

As noted earlier, only a limited number of WIC site staff had direct contact with maternity patients while they were in the hospital. However they impacted on breastfeeding promotion during this period by their involvement in inservice training for hospital staff, development of referral mechanisms to facilitate postpartum followup and other such means. In the Tacoma-Pierce County Health Department WIC Program (WA), for example, a lactation specialist, who is a community nurse, teaches monthly classes and provides inservice training to the hospital nursery staff. She is also available to professionals for consultation on problems that cannot be handled by phone.

Hospital policies and procedures related to breastfeeding were revised by the nutritionist in the Uintah County WIC Program (UT) who worked with the hospital dietitian and the hospital obstetric nursing director. When completed, the policies/procedures were presented to the medical and nursing staff for review and approval. As a result of this effort, formula was no longer distributed to nursing mothers.

In the Adams Brown WIC Program (OH), a registered nurse serving as breastfeeding counselor makes visits to the hospital every 6-10 weeks to work with the nurses and aides regarding breastfeeding. Hospital staff can call and refer patients to the counselor. The hospital notifies the counselor of mother's discharge and as soon as possible after discharge, the counselor contacts the mother to provide support.

Although 4 of the 34 WIC sites were hospital based, none of the staff was involved in education and counseling for inpatients. But at the Maternal and Infant Care WIC Program (GA) bedside "hands on" counseling is provided by a registered nurse employed as a breastfeeding counselor. She chairs a hospital breastfeeding committee which includes hospital staff as well as representatives of the county health department, teaches breastfeeding counseling and care skills to floor nurses, and shares breastfeeding information with hospital staff.

Postpartum Strategies

Recognizing the concerns and questions about breastfeeding which frequently arise after hospital discharge and the mothers' need for counseling and support to initiate and continue breastfeeding, the 34 sites appeared to give high priority to postpartum strategies. Included were breastfeeding classes focused on the "how to" of breastfeeding and specific questions/problems of mothers, telephone counseling, one-to-one peer counseling, and use of referral mechanisms to assure continuity of care between the hospital and the WIC site.

At the Steuben-Allegheny WIC Program (NY), breastfeeding support groups are led by trained volunteers. The volunteer leaders submit their topics and plans for the groups to the nutritionist for review prior to their sessions. A telephone support system is also used to provide needed counseling and help from the nurse or nutritionist.

Volunteer WIC-trained peer counselors are also used in the Harford County WIC Program (MD). The counselors attend WIC certification classes. A volunteer coordinator then assigns mothers to a specific volunteer who contacts them by phone to initiate the support system. Ongoing monthly staff meetings are held for the WIC volunteer counselors.

A monthly class on breastfeeding as well as individual counseling and support are available to mothers at the Laramie County WIC Program (WY). Mothers can telephone WIC staff for help when problems arise. Referrals are made to the La Leche League for additional help when deemed appropriate by the nurse and nutritionist.

Another approach used in several sites is the mailing of postcards throughout the postpartum period. For example, the Chilton County Health Department WIC Program (AL) sends a postcard to the mother after hospital discharge, and at 10 days, 3 weeks, 3 months and 6 months postpartum offering encouragement and advice.

Professional and Community Approaches

In addition to providing service directly to pregnant and postpartum women, most of the 34 sites carried out a range of activities designed to impact on the breastfeeding environment as well as improve the knowledge and skills of care providers. These activities included the use of local media, the development of breastfeeding task forces and committees, the provision of inservice training for care providers, and working with employers of working women.

An interesting effort was undertaken by the Tacoma-Pierce WIC Program (WA). They surveyed 75 agencies or companies employing more than 50 persons about their attitudes, policies and practices related to breastfeeding women who are working. Employers were asked to identify their need for assistance in developing more supportive policies. It is expected that the results will be published.

The director of the Near to the Heart Program at the Upson County WIC Program (GA) writes news articles on breastfeeding for the local paper and is working towards placing small table displays on the breastfeeding program in the offices of obstetricians and pediatricians in the community.

Hospital and community task forces are participated in by a number of the site staff members, e.g., District of Columbia Health Department, Maternity and Infant Care Program in Grady Hospital (GA), Soutel/Northwest Comprehensive Health Care Center (FL), Tacoma-Pierce WIC Program (WA). These groups were used to achieve a cooperative and coordinated response to breastfeeding promotion to obtain a broad base of community interest and support, and to extend services to more maternity patients.

Summary

It is evident that a wide range of activities designed to promote and support breastfeeding were underway in the 34 WIC sites. In general the programs were serving what is often considered to be a high-risk and hard-to-reach maternity population, e.g., many single mothers, young women under 19 years of age, working mothers, as well as women with limited competency in English. The sites attempted to overcome these constraints and meet the challenge of breastfeeding promotion through a variety of strategies. These included developing cooperative and coordinated services with other agencies and organizations which could impact on the population; utilizing the strengths and experience of WIC participants as volunteers to achieve their objectives; taking advantage of continuing education related to lactation and breastfeeding so that they could provide informed leadership; and capitalizing on the media to get the message out to care providers, the public and all in the community who could influence the decision to initiate and continue breastfeeding.

APPENDIX D

ACKNOWLEDGMENT OF PARTICIPATING LOCAL AGENCIES AND SERVICE SITES

The Food and Nutrition Service of USDA and Development Associates, Inc. wish to acknowledge all who participated in this study and express gratitude for their cooperation and their generous expenditure of time in responding to the needs of the study.

All the participating local agencies and service sites are listed below. For the convenience of the reader, the list has been organized with the following divisions: agencies and sites who participated in the case study visits; agencies and sites who participated in the telephone followup but not the case study visits; agencies and sites who completed survey forms but did not participate in further followup. Within each section, the agencies and sites are listed alphabetically by State.

Case study local agencies and sites

Research and Educational Institute WIC
2930 W. Imperial Highway #622
Inglewood, CA 90303
(213) 757-0191
(Service site - South Health Center)

Fulton County Health Department
99 Butler Street, N.E.
Atlanta, GA 30303
(404) 572-2536
(Service site - South Fulton Health Center)

Near North Health Services Corporation
1276 North Clybourn
Chicago, IL 60610
(312) 337-1073
(Service site - Near North Clinic WIC)

(Non-WIC)
MCH Migrant Health Project
Department of Maternal and Child Health
School of Public Health
University of North Carolina
Rosenau Hall, 201 H
Chapel Hill, NC 27514
(919) 567-6194
Service site - Tri-County Community Health Center
in Newton Grove)

Centro de Salud Familiar La Fe - WIC
P.O. Box 1040
El Paso, TX 79906
(915) 545-4550

Vermont Department of Health
St. Albans District Office
P.O. Box 319
Upper Fairfield Street
St. Albans, VT 05478
(802) 524-9741

(Non-WIC)
Breastfeeding Promotion Project
North District Office of Seattle-King County
10501 Meridian Avenue North
Seattle, WA 98133
(206) 522-2615
(Service site - Columbia Clinic)

Eau Claire City - County WIC Project
720 Second Avenue
Eau Claire, WI 54703
(715) 839-4889

Telephone followup local agencies and sites

Bureau of Nutrition
Jefferson County Health Department
1400 6th Avenue South
Birmingham, AL 35233
(205) 933-9110
(Service site - Eastern Health Center)

Tohono O'odham Community Health Department
P.O. Box 837
Sells, AZ 85634
(602) 383-2221
(Service site - Sells Clinic)

Sutter County Health Department WIC
P.O. Box 1510
Yuba City, CA 95992
(916) 741-7224

Children's Hospital Comprehensive Care Clinic WIC
2220 11th Street, N.W.
Washington, DC 20009
(202) 745-5597

East Central Health Department 6
WIC Program
1001 Bailie Drive
Augusta, GA 30910-2899
(404) 724-8802
(Service site - Medical College of Georgia
Maternity and Infant Care Program)

Dearborn County Hospital WIC Program
605 Wilson Creek Road
Lawrenceberg, IN 47025
(812) 537-4777
(Service site - Lawrenceberg, WIC Clinic)

Lake Area United Way
Gary WIC Program
300 W. 21st Avenue
Gary, IN 46407
(219) 883-1335

Haverhill Community Action WIC
25 Locust Street
Haverhill, MA 01830
(617) 373-1971
(Service site - Haverhill Site)

Rockingham County Community Action Program
600 State Street
Suite 5
Portsmouth, NH 03801
(603) 431-2911
(Service site - Derry site)

Plainfield WIC Program
510 Watchung Avenue
Plainfield, NJ 07060
(201) 753-3387

Valley Family Planning
27 1/2 South 3rd Street
Grand Forks, ND 58201
(701) 594-5755
(Service site - Emerado WIC Program)

Community Outreach, Inc.
128 S.W. Ninth Street
Corvallis, OR 07333
(503) 758-3534
(Service site - Corvallis WIC Program)

Mountainland Head Start WIC
1684 West 820 North
Provo, UT 84601
(801) 373-5339

Sixteenth Street Community Health Center
WIC Project
1036 S. 16th Street
Milwaukee, WI 53204
(414) 643-7554
(Service site - 16th Street WIC)

Other participating local agencies and service sites

Chilton County Health Department
WIC Program
Box 1778
Clanton, AL 35045
(205) 755-7997

(Non-WIC)
Alameda County Infant Feeding Project
Highland General Hospital
1411 E. 31st Street
Oakland, CA 94602
(415) 532-0275

(Non-WIC)
Wellstart/The San Diego Lactation Program
P.O. Box 87549
San Diego, CA 92138
(619) 295-5192

Ouray County Nursing - WIC
Bin C. Courthouse
Ouray, CO 81427
(303) 325-4670

Day Kimball Hospital WIC Program
320 Pomfret Street
Putnam, CT 06260
(203) 928-3660

D.C. General Hospital
WIC Program
1900 Massachusetts Ave., S.E.
Building # 9, Rm. AF 27
Washington, DC 20003
(202) 675-7149

Duval Country Health Unit
515 West 6th Street
Jacksonville, FL 32206
(904) 630-3290
(Service site - Soutel/Northwest Comprehensive Health Care Center)

Maternal and Infant Care Project WIC Program
Grady Memorial Hospital
80 Butler Street
Atlanta, GA 30335
(404) 589-4932

District 4 Health Services
1555 Doctors Drive, N.E.
La Grange, GA 30240
(404) 884-0870
(Service site - Upson County Health Department)

Central District Health Department
1455 North Orchard
Boise, ID 83706
(208) 375-5211
(Service site - Boise site)

Operation Threshold
120 Independence Avenue
Waterloo, IA 50703
(319) 233-1851
(Service site - Blackhawk County)

Harvey County Health Department
Box 687 - Courthouse
Newton, KS 67114
(316) 283-6900

Harford County Health Department
P.O. Box 191
Bel Air, MD 21014
(301) 452-8547
(Service site - Harford County)

Baltimore County Department of Health
401 Bosley Avenue
Towson, MD 21204
(301) 494-3593
(Service site - Hannah More Academy Center)

New Beford WIC Program
95 Cedar Street
New Bedford, MA 02740
(617) 997-1500
(Service site - New Bedford WIC)

Somerville/Medford WIC
230 Highland Avenue
c/o Somerville Hospital
Somerville, MA 02143
(617) 666-4400
(Service site - Somerville Hospital site)

Clay County WIC Program
914 8th Avenue North
Moorhead, MN 56560
(218) 299-5074
(Service site - Moorhead Clinic)

District I Health Office
P.O. Box 1055
Batesville, MS 38606
(601) 563-5603
(Service site - Coahoma County Health Department)

Flathead Reservation WIC Program
Tribal Health - 26 Round Butte Road West
Ronan, MT 59864
(406) 676-2770
(Service site - Ronan Area)

Southwestern Community Services
38 Mechanic Street
Keene, NH 03431
(603) 352-7512
(Service site - Cheshire County)

Ammonoosuc Family Health Services
20 Main Street
Littleton, NH 03561
(603) 444-6192
(Service site - Littleton)

Steuben-Allegany WIC Program
119 East Steuben Street
Bath, NY 14810
(607) 776-9814
(Service site - Bath Clinic)

Seneca Nation
1510 Route 438
Irving, NY 14081
(716) 532-5582

Transylvania County Health Department
WIC Program
Community Services Building
Brevard, NC 28712
(704) 884-3135

UND - Family Practice Center WIC Program
29 North University
Fargo, ND 58102
(701) 235-2749

Vinton County Health Department
State Route 93 North
McArthur, OH 45651
(614) 596-4171

Adams Brown WIC Program
9137 State Route 136
West Union, OH 45693
(513) 544-5310
(Service site - Panhandle Health Center)

Baker County WIC Program
2610 Grove Street
Baker, OR 97814
(503) 523-6414

Bucks County Department of Health
Neshaming Manor Center - Building K
Doylestown, PA 18901
(215) 345-3494
(Service site - Quakertown WIC)

Brown County WIC
25 Market Street
Aberdeen, SD 57401
(605) 226-3730

Community Health
WIC Program
102 4th Street West
Brookings, SD 57006
(605) 692-9491

Uintah Basin District Health Department
Room 20 Courthouse
Vernal, UT 84078
(Service site - Uintah County, Vernal Office)

(Non-WIC)
Breastfeeding Peer Counselors
Maternal and Child Health Clinic
800 S. Walter Reed Drive
Arlington, VA 22204
(703) 553-8551

Tacoma-Pierce County Health Department
3629 South D Street
FC: 3193
Tacoma, WA 98408
(206) 591-6403

Menominee Tribal Clinic
P.O. Box 235
Keshna, WI 54135
(715) 799-3361

(Non-WIC)
Milwaukee Task Force on Breastfeeding
1107 W. Mitchell Street
Room 202
Milwaukee, WI 53204
(414) 643-0757

Waupaca County Department of Human Services
Route 1, Box 34
Weyauwega, WI 54983
(414) 867-3126

Laramie County WIC Program
309 West 20th Street
Cheyenne, WY 82009
(307) 777-6058